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# XIII World Congress of Perinatal Medicine

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**POSTERS** 

# P-0001 | POSTER | ART AND THE COMPLICATIONS OF PREGNANCY

# RISK FACTORS FOR UNFAVOURABLE OUTCOME OF TRANSPORT OF INFANTS INTO TERTIARY HEALTH CENTRES

<u>Dragana Stojkovic, Tatjana Nikolic</u> *Clinical Center of Serbia, Clinic for gynecology and obstretics* 

#### Abstract:

The aim of this study was to analyse the outcome of transported newborns, in correlation to their gestational and postnatal age as well as the length of transportation.

This retrospective epidemiological study, includes newborns who were transported from HC Vranje into tertiary care centres during four years period (2009.-2012.). Analysed newborns were divided into three groups: I <32 weeks and BW<1500g; II 32 - 37 weeks and BW from 1500 - 2500 g and III >37 weeks and BM>2500 g. Most common risk factors for morbidity and mortality of transported infants, such as sex, birth weight, gestational age and Apgar score in 5th minute, have been assessed. In regards to the outcome of transport, postnatal age and the duration of transport have been analyzed. The outcome have been defined as favorable (survived) or unfavorable (did not survive).

208 infants have been transported (3%), out of which 72 were preterm infants (35%). Unfavorable outcome had 17 infants (8%). Gestational age had significant influence on the outcome of the transported infants p = 0.000 (24% I, 17% II and 10% III group). Sex of infants have not influenced the outcome of treatments (for preterm infants p = 0.691 and for term infants p = 0.253). Unfavorable outcome was influenced by perinatal asphyxia (low Apgar score in 5th minute 59% p < 0.05). Infants who needed an urgent transport had a large percentage of unfavorable outcome, the mortality was 94% among the infants transported in the first hour of life (p < 0.01). Duration of transport varied from 90 - 210 minutes, and had significant influence on the outcome of the treatment (p = 0.002).

**Conclusion:** the outcome of transported infants was significantly influenced by clinical condition of infants prior to transportation, gestatial and postnatal age, as well as the length of transportation.

#### P-0002 | POSTER | ART AND THE COMPLICATIONS OF PREGNANCY

### PREGNANCY OUTCOME AFTER IVF IN YOUNG POOR RESPONDER

<u>Selma Đurbuzović Ramović</u>, Željko Lazović, Angela Ćorić General Hospital "DANILO I" Cetinje/department of Obstetrics and Gynecology

#### Abstract:

Poor ovarian response (POR) to ovarian stimulation indicates a reduction in follicular response, resulting in a reduced number of retrieved oocytes, and subsequintly lower pregnancy rates compare with normal responder. ESHRE consensus defines POR patients on the presence at least two of the following three features "Bologna criteria": I Advanced maternal aged (>40 years) or any other risk factor for POR II A previous POR (<3 oocytes with conventional stimulation) III An abnormal ovarian reserve test-ORT (AMH < 0.5-1.1 ng/ml; AFC <5-7; basal FSH>10-20IU/L; E2 level >60-80pg/mL; inhibin B<40-45pg/mL).

Young woman with a risk factor and an abnormal ORT should be identified as PORs or 'expected PORs' as they have not yet undergone ovarian stimulation. 28-years-old nulliparous women diagnosed as infertile with POR was referred to our infertility unit for IVF tretment. She used to have regular menses. Medical history revealed that she had 2 previous ovarian surgery: 1. bilateral resection of an ovarian endometriotic cyst 3 years ago. 2. Left salpingo-oophorectomy because of pyosalpinx and endometriotic ovarian cyst 5 months ago. The patient was also affected by autoimmune thyroiditis, treated with levotiroxin. Her basale hormonal status is: after 1st ovarian surgery-FSH 9.5IU/L, LH4.6 IU/L, E2 43pg/mL and 2nd ovarian surgery-FSH 14.5IU/L, LH 5.5IU/L, E2 40 pg/mL.

Transvaginal ultrsonography-TVS demonstrated normal size, retroverted uterus with thin endometrum and small right ovary with 3-4 primordial follicles, left ovary was not visible. Hysterescopy was performed one month prior IVF and demonstrate normal uterine cavity with obliterated both ostium. The couple were counseled to undergo of IVF cycle with GNRH antagonist protocol and high dose recombinanant FSH. Transvaginal ultrasound (AFC 2) and basale hormonal status (FSH 16IU/L, LH 7.7IU/L, E2 18pg/mL, Progesterone 0.27; bHCG 0) were arranged on day 2 of the period after oral contraceptive pre-treatment. For ovarian stimulation rFSH was commenced at 400 IU daily from day 2, next 4 days. Response to ovarian stimulation was monitored by both, TVS and hormonal assessment. On day 6 ultrasound check revealed only one follicle 9mm, E2 51pg/ml and LH 13.5IU/L, Endometrium 5mm. It was decided to continue with 350 IU rFSH and 0.25 GNRHant daily next 7 days. Ovulation trigger was given with 10000 HCG when the only leading follicle reached 19 mm diameter, E2 158pg/mL, LH 2.03 IU/L and endometrium tikness 9mm. 34h after hHCG administration one mature MII oocytes retrieval was attemped. Fertilizing by ICSI resulting in a cleavage embryo 2 cell. Transfer was made 48h after retrieval. Luteal phase was supported by vaginal progesterone 400 mg three times daily, HCG 1500IJ on the third day, Folic acid once daily. Clinical pregnancy with fetal cardiac activity was confirmed 28 days after ET. The woman delivered by cesarean section at 38 weeks of gestation, giving birth to a healthy male infant who weighed 4200g

Conclusion is the ORT is good predictor of ovarian response to stimulation, but it is not reliable predictor of IVF outcome. Young women with POR may have reduced quantity of oocytes, but often have good oocyte quality.

# P-0003 | POSTER | BRAIN IMAGING IN PRETERM INFANTS

### DEVELOPMENT OF HUMAN GANGLIONIC EMINENCES ASSESSED BY IN VITRO MICRO-MRI

Dan Boitor-Borza, C. Crivii, F. Turcu, A. Farcasanu, S. Simon, F. Stamatian

Abstract:

Development of human ganglionic eminences assessed by in vitro micro-MRI

**Objectives:** Ganglionic eminences are temporary structures which appear during the 5th week post-fertilization in the floor of telencephalic vesicles and dissapear until the 35th week of gestation. The aim of this observational descriptive study of morphological research is to depict the ganglionic eminences within the embryonic and early fetal brains by using micro-MRI.

**Methods:** We examined in vitro 12 human embryos ranging from 6 and 10 gestational weeks and 8 fetuses between 11 and 14 gestational weeks. Micro-MRI investigation was performed with a Bruker BioSpec 70/16USR scanner (Bruker BioSpin MRI GmbH, Ettlingen, Germany) operating at 7.04 Tesla.

**Results:** We describe the morphological characteristics of the ganglionic eminences in series of embryos and fetuses ranging from the 21 mm crown-rump length (9th gestational week) to 85 mm crown-rump length (14th gestational week). The acquisition parameters which were modified for each embryo in order to obtain an increased spatial resolution, making possible the acquisition of high quality micro-MR images, are also presented. Conclusions: In our study we obtained a remarkable spatial resolution of 27  $\mu$ m/voxel, which allows visualisation of tiny structures of the developing brain such as the ganglionic eminences. Micro-MRI provides incredibly accurate images, which are comparable with the histological slices due to the high spatial resolution. Micro-MRI is the new standard method for in vitro morphological studies of embryos and fetuses.

**Key-words:** micro-MRI, ganglionic eminences, brain, development

# A CASE REPORT OF ASYMPTOMATIC ECTOPIC POSTERIOR PITUITARY IN AN EXPREMATURE 4 MONTHS OLD GIRL

Ariana Spungina, Sanjay Raina, Amith Nuti Paediatric Dept., The Princess Alexandra Hospital

#### Abstract:

**Introduction:** Ectopic posterior pituitary results from disruption of normal embryogenesis of the posterior pituitary. It is rarely an isolated abnormality and is often associated with other congenital central nervous system anomalies, such as septo-optic dysplasia and corpus callosum agenesis. These children are often of a short stature due to growth hormone deficiency. HESX1 is the gene, which is associated with ectopic posterior pituitary.

**Method:** Information was collected from the parents, patient notes and hospital databases.

**Results:** 31 weeks old baby, who was born at a district general hospital and was found to have a subependymal pseudocyst on a cranial ultrasound. At 4 months of age anMRI head was performed (image 1), which showed an ectopic posterior pituitary at the site of the proximal infundibulum. The anterior pituitary was within the sella and of normal intensity and there was no interruption of the pituitary stalk. There were no neuroanatomical abnormalities and no symptoms or signs of pituitary dysfunction. The patient had an isolated low free thyroxine, the rest of the endocrine tests were normal.



**Conclusion:** Reported literature shows ectopic posterior pituitary tissue can present incidentally in infancy, occur in isolation, without interruption of the pituitary stalk and does not always cause deficiency of pituitary hormones. However, these patients require long-term monitoring of late onset of symptoms as patient's body's requirements for pituitary hormones may change with age.

# P-0005 | POSTER | BRAIN IMAGING IN PRETERM INFANTS

# CORELATION BETWEEN VENTRICULOMEGALY AND HROMOSOMAL ABNORMALITIES

<u>Todorovska Irena</u>, Dabeski Drage, Livrinova Vesna, Simeonova Krstevska Slagjana *University clinic of Gynecology and obstetrics* 

Abstract:

**Objectives**: To determine procent of chromosomal abnormalities in patients with fetus with ventriculomegaly from 10-15mm.

**Material and methods:** In 25 patients with fetal ventriculomegaly 3 has chromosomal abnormalities (12%).

The other ones have normal cariotype. We used Voluson UZ E8. We diagnosed Down Sy, but the fetuses have 2 soft markers from screening.

**Results:** From 25 patients, 3 (12%) has detected chromosomal anomalies. It is dicutable for indication invasive diagnostic, but patients has wright to know exactly diagose for their babies.

**Discussion:** Every patient has wright to konw diagnose for their fetuses and I think we should perform invasive diagnose for ultrasound signs for abnormalities.

# P-0006 | POSTER | BREECH DELIVERY

### EXTERNAL CEPHALIC VERSION TO REDUCE CAESAREAN SECTIONS

Boštjan Lovšin, Mrkajic M, Zver Skomina J, Deisinger D, Cetin Lovsin I, Jevtić-Đorđević I, Ćatić D

#### Abstract:

**Objectives:** Almost all babies in breech presentation at term are delivered by caesarean section. Professional guidelines recommend an attempt of external cephalic version to reduce breech presentations at birth and thus the proportion of caesareans. Our aim was to analyze the clinical and ultrasound factors to predict the outcome of version and check the hypothesis if the implementation of the external cephalic version helps to reduce the number of caesareans.

**Methods:** The study included all attempts of external cephalic version after 36 weeks of pregnancy at the Department of Obstetrics and Gynaecology in Izola General Hospital, Slovenia from 2002 to 2010. Results: 68 out of 143 (47.6 %) external cephalic versions were successful. The success of intervention was mostly affected by a greater amount of amniotic fluid, higher fetal position in the pelvis and transverse or oblique lye of the fetus. With 100 attempts of external cephalic version 32 caesareans were avoided or one caesarean with 3.1 attempt.

**Conclusions:** The study confirmed that performing external cephalic version the number of caesareans can be reduced. The proportion of successful versions was comparable to studies in the literature despite minimal use of uterine muscle relaxants. We strongly suggest to attempt external cephalic version in case of a greater amount of amniotic fluid, higher fetal position in the pelvis and transverse or oblique lye of the fetus because a very high rate of success.

### P-0007 | POSTER | BRONCHOPULMONARY DYSPLASIA

# RISK FACTORS FOR BRONCHOPULMONARY DYSPLASIA IN VERY PRETERM INFANTS

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#### Abstract:

**Background.** Bronchopulmonary dysplasia (BPD), a serious pulmonary disease in premature infants, is the consequence of the complex interaction of various perinatal and postnatal factors. Early identification of risk factors allows the implementation of possible preventive strategies.

**Objective.** Determining perinatal risk factors for developing bronchopulmonary dysplasia in infants < 32 weeks of gestational age. Materials and metods. This study enrolled 153 newborns < 32 weeks of gestational age. BPD was defined as a need for additional oxygen at 36 weeks of postmenstrual age. Details including gestational age, sex, birth weight, prenatal steroids, chorioamnionitis, Apgar score, hypotension, pH, excess base (BE) after birth, surfactant treatment, ventilatory support, days of postnatal oxygen requirement, early and late onset sepsis, air leaks, patency of ductus arteriosus, IL-6 in first six hours after birth were colected. The enzyme immunoassay technique Quantikine R & D System was used for the determination of the IL-6 levels.

**Conclusions.** In our cohort of infants GA < 32 weeks exposure to perinatal inflammation increases the risk for early neonatal death but not for BPD. However, low gestational age, need for resuscitation, hypotension, mechanical ventilation, and late onset sepsis were major risk factors for BPD development.

# P-0008 | POSTER | CESAREAN SECTION DILEMMA

### NEONATAL RESPIRATORY MORBIDITY AND MODE OF DELIVERY

<u>Zita Gyurkovits</u>, Tamás Sári, Gábor Németh, Hajnalka Orvos Department of Obstetrics and Gynaecology, University of Szeged, Hungary

#### Abstract:

**Objectives:** To determine the incidence of respiratory morbidity according to gestational weeks, mode of delivery and gender; and to assess whether the timing of delivery between 37 and 41 weeks gestation influences neonatal respiratory outcome.

**Methods:** Retrospective analysis was carried out at the Department of Obstetrics and Gynaecology, University of Szeged, Hungary between January 2012 and December 2012. All cases of respiratory distress syndrome (RDS), transient tachypnea (TTN), meconium aspiration syndrome (MAS), apnea, persistent pulmonary hypertension of the newborn (PPHN), requiring admission to the Neonatal Intensive Care Unit (NICU) due to respiratory distress were analyzed.

**Results:** During one-year period 2563 deliveries occurred, 277 (10.8%) born preterm, the incidence of any kind respiratory morbidity in this group was 57.8% while among term newborns it was 5.8%. The incidence of cesarean section (CS) was 65% among preterm, 40.4% among term neonates. The incidence of RDS was 19.4% among preterms and 0.3% among terms. Among term infants the incidence of TTN requiring NICU admission was 1.0%, of the apnea 0.3%, 0.17% of MAS and 0.13% of PPHN. The incidence of respiratory morbidity among term newborns was higher for the group delivered by CS (5.9%) compared with vaginal delivery (4.8%), but it did not reach the level of significance (p=0.257). Comparing the incidence of respiratory morbidity of term newborns delivered by CS between the 37-38 and 39-41 gestational weeks, a significant reduction in the later group was observed (11.2% vs. 2.5%; p<0.05). There were no significant differences neither in healthy nor in respiratory morbidity groups according to gender distribution.

**Conclusions:** Significant reduction in neonatal respiratory morbidity would be obtained if elective caesarean section was performed after 38 weeks of pregnancy.

**Keywords:** neonatal respiratory morbidity, cesarean sectio

### P-0009 | POSTER | CESAREAN SECTION DILEMMA

# END OF A PREGNANCY IN AN INDUCED DELIVERY AFTER A PREVIOUS CESAREAN SECTION

Rodriguez-Rubio, C.; Revelles, L; Mora, Jc.; Naveiro, M.; Malde, J.; Puertas, A. Hospital Virgen de las Nieves / Department of Obstetrics & Gynaecology

#### Abstract:

**Objectives:** Analyze how pregnancy ends in cases of an induced delivery when a woman has had a previuos caesarean section at Hospital Virgen de las Nieves (Granada) between 2003 and 2015.

**Material and methods:** this is a retrospective descriptive study analysing two groups: 987 induced deliveries in pregnant women with previous cesarean section (study group) and 2,000 induced deliveries in pregnant women without previous cesarean section (control group), all being randomly taken from the database of the Hospital. Twin pregnancies were ruled out in both groups.

**Results:** The results in the comparison of the study group versus the control group were:

VARIABLES OF MOTHERHOOD: age ( $\bar{x}$ ): 32 (+/- 5) and 31.2 (+/- 6) years \*\*. Multiparous (> 2 births): 136 (13.8%) and 183 (9.2%) \*\*.

DELIVERY VARIABLES: Days of pregnancy ( $\bar{x}$ ): 277 (+/- 14) and 278 (+/- 17) (pNS). Meconial amniotic fluid (AF): 186 (18.8%) vs. 346 (17.3%) (pNS).

Reasons to induce delivery: early breaking of the amniotic sac>24h: 385 (39%) vs. 641 (32.1%) \*; Prolonged pregnancy 191 (19.4%) vs. 511 (25.6%) \*; meconial AF 51 (5.2%) vs. 141 (7%) \*; Fetal pathology 167 (16.9%) vs. 442 (22.1%) \*; Maternal pathology 64 (6.5%) vs. 144 (7.2%) (pNS); other reasons 129 (13.1%) vs. 121 (6.1%) \*.

End of delivery: eutocic delivery: 301 (30.5%) vs. 1151 (57.6%) \*; Instrumental delivery: 239 (24.2%) vs. 350 (17.5%) \*; and cesarean section 447 (45.3%) vs. 499 (25%) \*.

Medical advice for instrumental delivery: risk of loss of fetal well-being 81 (33.8%) vs. 146 (41.7%)\*; and assistance for the expulsion of fetus 158 (66.2%) vs. 204 (58.3%)\*.

Medical advice for cesarean delivery: risk of loss of fetal well-being 142 (31.8%) vs. 170 (34%) (pNS); Failure of induction 145 (32.5%) vs. 127 (25.5%) \*; No progression of labor 84 (18.7%) vs. 157 (31.5%) \*; Cephalopelvic disproportion 38 (8.4%) vs. 36 (7.2%) (pNS); And others 38 (8.6%) vs. 9 (1.9%) \*.

**Neonatal results:** <2500grs 68 (6.9%) vs. 217 (10.9%) \*\*. PHAU (x̄): 7.25 (+/- 0.08) vs. 7.24 (+/- 0.229) (pNS). Apgar1 '<4 of 19 (1.9%) vs. 24 (1.2%) (pNS) and Apgar10 '<7 23 (2.3%) vs. 33 (1.7%) (pNS).

**Conclusions:** The history of a previous cesarean section carries an increased risk of a delivery ending in a new caesarean section. A possible explanation for this result is found in the fact that protocols for the indication of obstetric surgery are stricter in previous cesarean pregnancies. We can support this assertion by pointing out that in the sample analyzed, in pregnant women with previous cesarean section, the indications for the help in the expulsion and the failure of the induction were more frequent than in the control group.

# P-0010 | POSTER | CESAREAN SECTION DILEMMA

### CAN AN APP HELP US TO INDICATE APPROPIATE CESAREANS?

<u>Laura Bonilla Garcia</u>, Naveiro M, Rios M, Galán A, Barranco M, Puertas A *Hospital Universitario Virgen de las Nieves* 

#### Abstract:

**Objectives.** The objective is to estimate the percentage of appropriate elective cesarean sections (CS) performed at Hospital Virgen de las Nieves of Granada(HUVN) using the web application "Cesarean automatic consultant", developed by the Dr. Sánchez-Nieves and collaborators. The app is based on standards collected by a group of experts in obstetrics.

**Methods.** A retrospective study was carried out, collecting the data corresponding to the elective CS performed at our center in 2016. The number of cases were 159, those that started spontaneously before the scheduled date of the cesarean and those with broken membranes were excluded. The variables collected were: number and presentation of fetuses, chorionicity, parity, uterine scars, previous cesareans, gestational age, estimated fetal weight, special situations and Bishop's score. When entering the variables in the app the results were classified as: appropriate, doubtful or inappropriate

**Results.** When we introduced each case in the app the percentage were: 41% appropriates, 19% doubtful and 35% inappropriate. The remaining percentage, 5%, corresponds to non-valued cases since the variables are not collected. Some of these unrecorded variables are poorly controlled gestational diabetes, Rh-isoimmunization and lack of lower limb. When analyzing the data corresponding to inappropriate cesareans, 87,5% are due to their realization before the 39th week of gestation with statistically significant (p<0,05)

**Conclusions.** The results show that, at the HUVN, the standards were not followed when elective cesareans were indicated in 35%. When we analyzed the main causes of this occurrence we realized that gestational age is a determining parameter when classifying if a cesarean is inapproriate. Therefore, delaying the gestational age at the time of elective CS would increase the number of appropriate CS. However we must assess if this change would bring some benefit to our patients and /or newborns.

# P-0011 | POSTER | CESAREAN SECTION DILEMMA

# SCORE TO ESTIMATE THE CHANCE OF SUCCESS OF TRIAL OF LABOR AFTER CESAREAN INCLUDING DATA OF LABOR COURSE

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# Abstract:

Score to estimate the chance of success of trial of labor after Cesarean including data of labor course introduction: There is much discussion about the advantages/disadvantages of a trial of labor after cesarean (TOLAC). Literature shows a slight greater risk for mother/neonate in TOLAC compared with repeat cesarean. However, when vaginal delivery is achieved, the outcomes are better than in repeat cesarean. Some data suggest, as we could expect, that the greater the likelihood of success, the lower the risks associated with this trial. Hence the utility of scores of probability of successful/failed TOLAC.

**Objective:** To build two scores for risk of failed TOLAC to be applied at admission in labor and three hours later.

**Methods:** It was conducted a nested case-control study with the live births to women with one previous cesarean assisted in a public teaching hospital in Brazil, admitted in spontaneous labor, who were submitted to TOLAC. Were excluded: preterm births, non cephalic presentations, multiple pregnancies and fetal malformations. Were considered cases the failed TOLAC, and controls the trials that resulted in vaginal births. Were accessed the association of cases with 20 variables, through qui square test for categorical variables and t test for continuous variables. Association was defined as p < 0.05. The associated variables were then tested in two models of multivariate analysis to build the two scores. The scores were internally validated, and two receiver/operator curves were created.

**Results:** Were included 260 TOLAC. Were found ten variables that were associated with the cases. Since we had 42 cases (83.8% success rate), we were limited to utilize only four variables for each score. In the score for admission, were utilized: presence of hypertensive disease (chronic, preeclampsia or superimposed preeclampsia: diminishes the chance), fundal height as continuous variable (the greater, the smaller the chance), history of previous vaginal birth (increases the chance), and dilatation at admission (the greater, the greater the chance) as continuous variable. For the score to be applied three hours later, were utilized: presence of hypertensive disease, fundal height as continuous variable, membrane status (ruptured increases the chance) and difference in dilatation as continuous variable (the greater, the greater the chance), both three hours after admission. Both scores showed good performance in the received-operator curve: area under curve of 73% for the one to be applied at admission and 84% for the one to be applied three hours later. Both scores were translated into nomograms that can be easily utilized by the clinician to estimate the likelihood of success for each case.

**Conclusion:** Both scores showed a good performance to assess the likelihood of success/fail of TOLAC. Hypertensive disease and fundal height fitted well in both. One of the scores performed better than scores built by other authors utilizing much larger samples, probably because we also included data until three hours after admission. We believe that, after this interval, there is

still time to take a decision for intervention as to avoid long labors that end in emergency cesarean. Selecting the cases with greater chance of success will probably lower the risks of TOLAC.

**KEYWORDS:** Trial of labor, Repeat cesarean, Delivery obstetric, Vaginal delivery, Hypertension pregnancy

# P-0012 | POSTER | CESAREAN SECTION DILEMMA

# PREVENTION OF MASSIVE OBSTETRIC HEMORRHAGE IN PATIENTS WITH PLACENTA ACCRETE

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### Abstract:

The aim of the study was to assess the experience of reducing blood loss and time of surgical intervention in patients with placenta accrete in the Perinatal Center, Rostov-on-Don, Russia.

**Materials and methods.** Retrospective analysis of all cases of patients with placenta accrete in the Rostov-on-Don Perinatal Center was conducted from 2014 to 2017. Prophylactic measures to prevent hemorrhage, duration of surgery and its volume and operative techniques were analyzed. The statistical analysis was performed using Mann-Whitney U-test.

**Results**. 76 patients with placenta accrete were divided into 4 groups. Group I included 35 (40%) pregnant women, whom endovascular methods of reducing blood loss (balloonization of common iliac arteries, selective embolization of uterine arteries) were performed. II group included 9 (12%), whom ligation of internal iliac arteries was performed. In III group (9 (12%) women) Foley catheter No.16 was used temporary on the inner cervical os and funnel-pelvic ligaments (Shmakov RG, etc. 2017). IV group consisted of 23 (30%) women, whom methods of preventing massive blood loss were not applied. The duration of surgical intervention in group III (1 hour 42 minutes±8.9 minutes) was statistically less than in group I (2 hours 10 minutes±7.1 minutes, p<0.0001), group II (1 hour 51 minutes±4.1 minutes, p<0.05) and in group IV (2 hours 44 minutes±9.6 minutes, p<0.0001). The total blood loss in group I (M± $\sigma$ ) was 2545.7±158.8 ml; II group - 2277.8±114.9 ml; III group - 1144.4±194.4 ml; in IV group - 4430.4±437.9 ml. The blood loss in group III was significantly less than in groups I, II and IV (p<0.0001). Metroplastic was performed in all women of group III.

**Conclusion.** Use of a temporary Foley catheter is a reliable, effective, inexpensive and simple method of preventing massive blood loss during a cesarean section associated with placenta accrete.

# P-0013 | POSTER | CESAREAN SECTION DILEMMA

### SUBPHRENIC ABSCESS IN THE CONTEXT OF AN URGENT CAESAREAN SECTION

<u>González Escudero AR,</u> Ríos Lorenzo M, Alkourdi Martínez A, Zurimendi Gorrochategui I, Sánchez Gila M, Puertas Prieto A *Hospital Virgen de las Nieves* 

#### Abstract:

**Introduction:** Nowadays the infectious complications remain one of the most important causes of maternal morbidity and mortality in patients who undergo a caesarean section and this correlates to a longer hospital stay and a cost increase. Comparing to a vaginal delivery, the risk of infection is from 5 to 20 times higher, so the puerperal sepsis reaches an incidence of 36%. The most common in that group are the infections of the surgical wound, endometritis and urinary tract infections, but we can found other ones that being less frequent, are more severe. The subphrenic abscesses are still related to a high mortality (31%) and, although they can be caused by digestive inflammatory processes most frequently, there are multiple surgical interventions which have being described as the origin of them, even when they happened without any incident.

Case report: Patient who comes to the emergency service with a fever of  $40^{\circ}$ C, mainly during the evenings and a left costal pain which gets worse with movements and cough. She had had a caesarean section two weeks before and two days after it she started with these symptoms and dyspnoea. Suspecting a respiratory infection, she started intravenous antibiotics (amoxicillin and clavulanic acid) which maintained during 7 days, and was discharged with the same antibiotic orally during another week. The patient doesn't report any improvement after two weeks of treatment and she doesn't present any finding during the physical and cardio-pulmonary examination. As a part of the diagnostic process, a CT scan is performed and it shows a splenomegaly (axis of 15 cm) with an image of 6.5x7 cm located in the superior pole, with gas inside which suggest a subphrenic abscess. Furthermore, the sputum culture done during the admission is negative. With this diagnosis, a surgical drainage is performed obtaining pus that result negative after a culture.

**Conclusion:** We present here a rare but severe complication caused by a one of the most common obstetric surgical intervention. We want to emphasise the importance of make correct differential diagnoses to avoid the delay of appropriate treatments. In addition, as we said before, the caesarean section can be considered the most frequent obstetric surgical intervention and it seems to be socially trivialised but we can't forget that it is still a surgical intervention and can be related to severe complications such as the one presented here

# P-0014 | POSTER | CESAREAN SECTION DILEMMA

# ASHERMAN'S SYNDROME COMPLICATED WITH PLACENTA INCRETA - A CASE REPORT

<u>Palma MJ</u>, Gomes I., Curado J., Cordeiro A, Leite C. *Hospital Garcia de Orta* 

#### Abstract:

Asherman's syndrome is a rare condition, characterized by total or partial obliteration of the uterine cavity by uterine synechiae, which occur mostly after curettage or surgery in pregnant or puerperal uterus. This is a recognized cause of infertility as well as repetitive miscarriages. The case presented here refers to a 40-year-old pregnant woman with an obstetric history of a cesarean section (CST) 10 years ago and a medical abortion due to trisomy 21 requiring uterine curettage 4 years ago. After this date and in view of the etiological investigation of repetitive spontaneous abortions, the diagnosis of Asherman's Syndrome was corroborated by hysteroscopy. Surveillance started at our Maternal Fetal Medicine Consultation at 20 weeks of gestation, at the time of the late pregnancy diagnosis, for the antecedents previously mentioned, and for right breast neoplasia diagnosed 1 year ago and submitted to quadrantectomy. The histological diagnosis was compatible with high-grade intra-ductal carcinoma in situ with negative sentinel ganglion. Pregnancy surveillance was uneventful. She was hospitalized for labor induction (ITP) at 40 weeks + 3 days for gestational age and for obstetrical and gynecological history. It was submitted to cross-sectional CST for apparent fetal-pelvic incompatibility, with the birth of a newborn (RN) female, 3785 gr, Apgar 9/10, healthy. At the third stage of labor, the presence of placental accretion was noted, and a sub-total hysterectomy was performed, which occurred without intercurrences. The pathological anatomy corroborated the diagnosis of placenta increta. In conclusion, in view of the high risk of complications associated with a pregnancy after the diagnosis of Asherman's syndrome, it is extremely important to evaluate and adequately guide these pregnant women during prenatal and perinatal surveillance

**Keywords:** Asherman's syndrome, placenta increta, emergency peripartum hysterectomy

### P-0015 | POSTER | CESAREAN SECTION DILEMMA

# PREGNANCY MANAGEMENT AND DELIVERY OF A PATIENT WITH HEREDITARY ANGIOEDEMA, A CASE REPORT

<u>Igor Samardziski,</u> Irena Todorovska, Vesna Livrinova, Slagjana Simeonova Krstevska, Marija Karapanceva, Atanas Sivevski, Saso Spasovski, Vesna Grivceva *University Clinic of Obstetrics and Gynecology* 

#### Abstract:

**Background:** Hereditary angioedema (HAE) is a rare genetic disease caused by mutations on the C1 esterase inhibitor gene. The incidence in the general population is estimated between 1 in 10,000- 1 in 150,000. The onset of HAE is usually during adolescence and it presents with episodic edema of the upper and lower extremities, the face, the vulva, upper respiratory airways and the gastrointestinal tract. Laryngeal oedema is life-threatening and accounts for the majority of deaths in patients with the condition.

Case report: We present the case of a 23-year-old primigravida, diagnosed with HAE at the age of 21. Her symptoms outside pregnancy included frequent attacks of peripheral edema, epigastric pain and occasional respiratory symptoms that responded to C1 esterase inhibitor (C1-INH) infusion. Her family history was of HAE in her mother. As pregnancy progressed, the attacks remainded the same as before pregnacy approximately every 3–5 days, and just few times C1 esterase inhibitor (C1-INH) infusion was given during the pregnancy. Serial growth scans showed appropriate fetal growth but at the last scan was detected polyhydramnion. The patient was admitted at the University Clinic of Obstetrics and Gynecology at 39 weeks of gestation for observation and planning the vaginal delivery. She was delivered by cesarean section under spinal anesthesia at 40+1 gw because of functional dystocia. A predelivery prophylactic dose of 4200 IU of C1-INH (Ruconest) was administered to cover for any HAE exacerbation and additional C1-INH concentrate was also made available in the operating room. A male baby was delivered weighing 3480 g with Apgar score 8/9. After the C-section a dose of 1200 IU of C1-INH (Berinert) was administered. The surgical and postoperative period was uneventful and patient was discharged from the clinic after 4 days.

**Conclusion:** HAE is a rare but potentially life threatening condition. In these cases a safe obstetric approach would be to administer a predelivery prophylactic infusion of C1-INH concentrate. During labour, endotracheal intubation can trigger severe acute laryngeal edema and every effort should be made for regional anesthesia whenever feasible. During pregnancy women with HAE should be monitored closely by different specialists (perinatologist anesthesiologist, pediatrician) who can work together with the HAE specialist (immunologist/dermatologist), thereby providing a multidisciplinary approach.

Key words: HAE, Delivery, C1-INH

# P-0016 | POSTER | CESAREAN SECTION DILEMMA

# PRUNE BELLY SYNDROME - EARLY PRENATAL DIAGNOSIS

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#### Abstract:

Prune Belly syndrome (PBS) is a rare congenital defect, affecting about 1 in 35 000-50 000 live births, occurs in about 97% in males. Main characteristics are: partial/complete absence of some abdominal muscles, urinary tract abnormalities (vesicoureteral reflux, megacystis, megaureter, hydroureter and hydronephrosis) and bilateral cryptorchidism in males. About 20% of cases are stillborn. Aplasia/hypoplasia of the lungs is very frequent, present in 80-99% of cases. There is also an increased incidence of tetralogy Fallot and ventricular septal defects. Etiology is unknown; it may occur with 18th and 21st chromosome trisomy. Additionally, a mutation in the CHRM3 gene has been reported. We present a case of prune belly syndrome diagnosed at 12 weeks of gestation. A 25-Year-old women (Gravida 5, Para 1, Missed Abortion 3, 1 healthy child) was referred to our hospital at 12 weeks of gestation. Ultrasound examination showed single viable fetus in uterine cavity, with positive fetal heart action and CRL was 50mm which stands for 12+0 weeks of gestation. Large cystic structure filling up the abdomen and pelvis, dimensions 25x26mm was noticed. Other fetal structures were orderly presented. Owing to ultrasound images, we suspected on prune belly syndrome. On the next examination the cystic formation was larger and oligohydramnios was present. Following the counseling, the couple opted termination of pregnancy. Prune belly syndrome is a serious congenital anomaly, therefore diagnosis in first trimester is very important so that pregnancy can be ended.

# P-0017 | POSTER | CESAREAN SECTION DILEMMA

# CESAREAN SECTION IN EMERGENCY COUNTY HOSPITAL DEVA - AN ANALYSIS DURING 2006 – 2017

Romeo Stanescu Deva Emergency County Hospital

Abstract:

**Introduction/Objectives:** The aim of this analysis was to determine the prevalence of cesarean section in patients admitted to the obstetrics-gynecology department of the Emergency County Hospital Deva.

**Materials and method:** The study developed within the obstetrics-gynecology department of the Emergency County Hospital Deva between january 2006 and june 2017. A number of 8137 births were analyzed, of which caesarean sections - 3210. We collected information on: patients' age , their background , parity, diagnosis, sex of fetuses, Apgar score at birth, fetal weight, membranes, gestational age.

**Results:** As for the patients' age, there is an increased incidence in the age range:21-30 years(56.47%). Regarding the diagnosis, there is a large number of dystocia compared to other diagnosis (42.27%). The number of caesarean sections in fetuses weighing between 3000-4500 g is significantly higher than in other cases (63.42%); in terms of gestational age 38-41 weeks, the percentage of caesarean sections is the highest of all the others (81.46%).

**Conclusions:** 1.The analysis shows that the incidence of caesarean section has increased gradually, reaching 45% during 2013-2017. 2. This is due, in addition to a higher incidence of obstetric indications, and an increased pressure from patients, to doctors' fears regarding charges of malpractice, fears exacerbated by the pressure of the media. 3.This gradual increase is consistent with the trend at European and global level, with slightly elevated values than in Europe, but in agreement with the results reported by several other maternity hospitals in Romania.

Key words: cesarean, Deva, analysis.

# P-0018 | POSTER | CONGENITAL HEART DISEASES

# IN - UTERO TRANSPORT FOR FETUSES WITH COMPLEX CONGENITAL DEFECTS IN A COUNTRY WITH LIMITED RESOURCES – SHORT EXPERIENCE

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### Abstract:

**Introduction:** Affecting 7 to 10 out of every 1000 newborns congenital heart defects are the most common type of birth defect and most common cause of morbidity and mortality in neonatal period in development countries. Prenatal diagnoses allow full investigation of affected fetuses for coexisting abnormalities, and for some complex cardiac lesions in-utero transport at tertiary level reduce postnatal morbidity and mortality. Some costs of care, notably the transport of critically ill infants, are reduced by prenatal diagnosis. Kosovo is the youngest country in Europe with high natality and high neonatal mortality rate, with lack of cardiac surgery service and limited economic resources. Under these condition prenatal diagnosis and in-utero transport is the best solution to reduce mortality and cost in fetuses with complex congenital heart defects CCHD).

**Aim of presentation:** is to present Kosovo experience in prenatal diagnosis and in-utero transport of fetuses with CCHD as a country with limited resources

Method and results: Retrospectively, we analyzed all fetuses diagnosed with CCHD during the period 2012-2016, where early, after birth, palliative or complete cardiac surgery is necessary. Of them we analyzed the group of fetuses transported in-utero abroad Kosovo and, comparing morbidity and mortality rate with those which have born in Kosovo. Analyzed group included fetuses with critical aortic coarctation (CoAo) and interrupted aortic arch (IAA), transposition of the great arteries (TGA), and all types of univentricular heart UVH). During this period 32 fetuses where diagnosed with mentioned pathologies. Of them 17 where referred and transport in-utero was done in Italian and Turkish centers. In all of them our prenatal diagnosis was confirmed and in12 pregnancies delivery was natural whereas at the 5th pregnancy delivery was with caesarean section. In all of them palliative surgical intervention was done and only one died as a complication after surgery. The left part, where delivery was done in Kosovo (7 cesarean section and 5 natural delivery), initially has been treated with Prostaglandins or balloon atrioseptostomy procedure was done. Of them 4 have been transported abroad by air flight ambulance, five by car ambulance and three died as a reason of the parents' inability to pay for air flight ambulance.

**Conclusion:** Optimal survival ands minimal cost is clearly possible in regionalized systems characterized by appropriate in-utero and infant transport. When compared with after-birth transport, in-utero transfer with delivery at tertiary setting produces neonates with reduced mortality, short- and long-term morbidity and length of hospital stay and costs.

Key words in-utero transport, congenital heart defect, prostaglandins, univentricular heart

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# P-0019 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

# A CASE OF POSTPARTUM BUDD CHIARI TROMBOSIS

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#### Abstract:

Budd Chiari Syndrome (BCS) is defined as congestive hepatopathy due to obstruction of the hepatic venous flow. BCS, which is reported rarely during pregnancy.

28-year-old woman, gravida 3 parity 2 patients with recurrent cesarean section, 36W pregnancy is present. An urgent caesarean decision is made on the increase of cervical dilatation on vaginal examination. None of laboratory and ultrasonography findings were special. No specific feature during cesarean section. On the 6th day after the operation, she presented with abdominal pain and dyspnea. Laboratory findings: Hb: 6 hct: 16 plt: 245000 wbc:18000 glu:109 creatine: 0.55 Ast:458 alt:521 t.protein:5,6 alb:3 APTT: 28.8 pt:16.8 inr:1.35 fibrinogen:402 Pathologic findings in abdominal ultrasonography were: In the size of 195 \* 156mm, which holds a large area in the right lobe of the liver, a current lesion in the RDUS was observed. Blood and lung tomography taken on these findings: Hypodens eareas in liver subcapsular hematoma? Bleeding? Pulmonary embolism was ruled out. Subcutaneous injection of 0.6 cc clexane was initiated. Emergency laparotomy was performed with a diagnosis of liver hematoma laceration due to distant vision in the abdomen, a tendency of AST / ALT to increase and exacerbation of right upper quadrant pain. In the operation which is performed with general surgery, Budd chiari syndrome was diagnosed. The patient was scheduled for intensive care unit treatment with BCS.

With this case, it is important to remind that young patients who are admitted in the early postpartum period may have rarely encountered fatal diseases under non-specific complaints and to emphasize the importance of antithrombotic therapy by calculating thromboembolic risk factors of the patient following post-cesarean postoperative period.

**Key words**: budd chiari, cesarean, thromboemboli

# P-0020 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

#### PERIPARTUM HYSTERECTOMY

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#### Abstract:

Peripartum hysterectomy refers to the hysterectomy performed during delivery or within 24 hours. This is a relatively rare procedure, that can be emergent or planed depending on the indication. In about 30-50% cases of emergency performed hysterectomies the cause is represented by severe uterine hemorrhage, which is impossible to control by the usual methods, as it happens in abnormal placentation or uterine atony.

Conservative methods should always be attempted in order to avoid if possible the morbidity and sterilization implied by hysterectomy. Regarding the risk factors for peripartum hysterectomy, prior caesarean delivery increases the incidence of this procedure from 1 in 30.000 to 1 in 220. The associated mortality is declared to be <1 percent, and the most frequent complications are febrile morbidity, hemorrhage and urinary tract injury.

We studied the incidence of peripartum hysterectomy and the most common associated condition of these cases in the Bucharest Emergency University Hospital for a period of six and a half years. Data were retrieved from the statistics department of the hospital. From January first, 2011 to June 26, 2017 in our hospital 21.746 deliveries were registered, of which 55 cases (0.25%) required peripartum hysterectomy. The associated pathologies analyzed were placental disorders (placenta accreta, increta, percreta), placenta previa, preeclampsia, uterine atony, uterine rupture, fibroids, cervical cancer and infection. Also, the rate of admission in the intensive care unit and mortality were analyzed.

The obtained results matched with those declared in the literature. The anticipation of the need of peripartum hysterectomy with the proper preparation, counseling and timing is a key element for the future outcome of the case. Knowing the relation of various risk factors with the possible need of this procedure significantly increases the rate of success and decreases the incidence of complications.

# P-0021 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

# EARLY ONSET, SEVERE DRUG-INDUCED IMMUNE THROMBOCYTOPENIA IN NEWBORN TWINS

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# Abstract:

**Introduction:** Drug-induced immune thrombocytopenia is considered extremely rare, as a cause of neonatal thrombocytopenia (PLT<150.000/ $\mu$ L). Diagnosis of drug-induced immune thrombocytopenia is considered as definite when all four George criteria are met: 1. Drug administration preceded thrombocytopenia. Recovery was complete and sustained after drug discontinuation 2. Other drugs administered prior to thrombocytopenia were continued or reintroduced after discontinuation of the suspected drug 3. Other etiologies of thrombocytopenia excluded 4. Re-exposure to the drug resulted in recurrent thrombocytopenia Objectives: We describe an interesting case of early onset, severe ampicilline-induced immune thrombocytopenia, in newborn twins.

**Material - Method:** Monochorionic- diamniotic female twin neonates (A) and (B) (GA: 36 weeks)

**Results:** Twins were born after an uncomplicated pregnancy via cesarean section (due to previous one). Perinatal history was unremarkable. Administration of empirical treatment with ampicillin and amikasin intravenously. On 2nd day of life (DOL), they exhibited severe thrombocytopenia (table 1), without hemorrhagic diathesis. Coagulation tests of (A) twin were prolonged (day 3). Laboratory screening for infection (CRP, blood culture), TORCH, perinatal asphyxia, necrotizing enterocolitis, neonatal alloimmune thrombocytopenia and disseminated intravascular coagulation, was negative. Drug-induced immune thrombocytopenia is an allergic reaction type II and in our case was related to ampicillin. Antibiotics were discontinued at 2nd DOL. Platelet transfusions were administered in both twins and fresh frozen plasma in (A) twin. On 5th DOL, platelet count was normal as well as coagulation tests of (A) twin, and no recurrence of thrombocytopenia was observed.

**Conclusions:** Drug-induced neonatal immune thrombocytopenia is acute and severe. Clinical suspicion is important for diagnosis, which is probable in our case.

# P-0022 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

# PROTHROMBIN COMPLEX CONCENTRATE (PCC) AS ALTERNATIVE RESCUE THERAPY FOR INTRACTABLE HEMORRHAGE IN NEONATAL PATIENTS

<u>Georgios Mitsiakos</u>, Ilias Chatziioannidis, Margarita Karametou, CrysaKarali, Eugenia Babatseva, Paraskevi Karagianni, Euthimia Papacharalampous, Euthimia Chatzitoliou, Vasiliki Soubasi "Papageorgiou" Hospital, 2nd Neonatal Department and NICU, Aristotle University of Thessaloniki

#### Abstract:

**Introduction:** Life-threatening haemorrhage in neonates is related to high mortality rates. Use of Prothrombin complex concentrate (PCC) in such cases could be significantly valuable because of the low levels of vitamin K-dependent coagulation proteins in neonates and their consumption in case of DIC status. Administration of PCC results in a faster and more effective discontinuation of bleeding, providing time to stabilize the neonate without the risks of fluid overloading and bloodstream infections.

**Objective:**Proposal of an alternative therapeutic approach to intractable bleeding in neonates resistant to conventional haemostatic therapy and compared the clinical outcome of newborns treated with PCC for intractable bleeding or severe coagulation disturbances according to time administrated. Subjects/methods:Data of 39 neonates treated successfully with PCC were retrospectively analyzed. Each patient received a median of 2.1 doses of 25/U of PCC in slow iv push with 12 hrs time-interval. Blood samples for evaluation of coagulation parameters (PT,aPTT,INR) were obtained 1/hr following infusion of each PCC dose.

**Results:**The population consisted of 39 neonates, 14 of them survived (group/A) and 25 died (group/B). There was no difference in BW, GA and bleeding cause or/and site between the 2 groups. In the neonates who survived PCC had been administered earlier in the disease process (within 24 hours of beginning of bleeding) compared to those who died (p=0.048). We observed a statistically significant decrease in PT (from  $39.5\pm41$  to  $18.7\pm4.41$  prior and after to PCC respectively, p=0.001) and in INR (from  $3.67\pm4.01$  to  $1.61\pm0.52$  prior and after to PCC respectively, p=0.002). There were no clinical signs of thrombosis or any other adverse effect due to PCC treatment.

**Conclusion:** PCC was safe and efficacious in neonates with intractable bleeding and/or severe coagulation disturbances and PCC was more effective in early intervention as rescue therapy, without any adverse events in all neonates

# P-0023 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

### PREMATURITY AS A RESULT OF HELLP SYNDROME

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#### Abstract:

**Introduction:** HELLP syndrome is a pregnancy complication consisted of hemolysis, elevated liver enzymes and low platelet count, which could be associated with significant maternal and perinatal morbidity and mortality.

**Objectives:** The aim of our study was to determine the incidence of prematurity in pregnancies complicated by HELLP syndrome, as well as to analyze the morbidity and mortality of these newborns.

**Methods:** A retrospective observational study was carried out at Clinic for Gynecology and Obstetrics of the Clinical Center of Serbia in the period from 2007. to 2014. year. We analyzed 39 newborns born from pregnancies complicated with HELLP syndrome and compared them with 28 newborns born from mothers without HELLP syndrome. Gestational age were matched among the groups. The variables were analyzed by chi-square ( $\chi^2$ ) test, a Student's t- test, Fisher exact probability test, Mann Whitney- U test.

**Results:** From total number of 39 newborns in the HELLP group, 35(89.7%) were born prematurely (from 23 to 36+6/7 GW), with mean gestational age of 33 weeks. Mean birth weight was 1833,85 g, length 42,59 cm, mean head circumference was 31cm and mean Apgar score was 5 in the first minute and 6 in the fifth minute. We did not find differences between the HELLP syndrome group and the control group in the gestational age, Apgar score (5 vs 6 in the first minute p = 0,101; and 6 vs 6 in the fifth minute, p = 0,450), and the incidence of severe RDS (respiratory distress syndrome grade III to V) (33,3% vs 17,6%, p=0,348), IVH (intraventricular hemorrhage) (61,8% vs 52,2%, p=0,472), perinatal asphyxia (15,4% vs 14,3%, p= 0,900), anemia and need for red blood cell transfusion (37,8% vs 28,0%, p=0,422), as well as mean blood glucose values (5,26 mmol / l vs 3,97 mmol / l, p= 0,795). There were significant differences between the HELLP syndrome group and the control group in the incidence of suspected fetal growth restriction (35,9% vs 10,7%, p= 0,0195) and thrombocytopenia in the first day of life (22,9% vs 4,0%,p= 0,044). Neonatal mortality in the whole HELLP group was 7.7% (vs 0,0% in the control group), but was expectedly higher among newborns of gestational age less than 32 weeks (21,4%).

**Conclusions:** This study shows increased risk of thrombocytopenia and intrauterine growth restriction in newborns from pregnancies complicated by HELLP syndrome. Most of the pathological conditions among these newborns are the results of prematurity.

Keywords: HELLP syndrome, newborn, prematurity

# P-0024 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

# VERY EARLY PRESENTATION OF MCAD (MEDIUM-CHAIN ACYL-COEONZYME A DEHYDROGENASE) DEFICIENCY IN A HEALTHY TERM NEWBORN

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#### Abstract:

Medium-chain acyl-CoA dehydrogenase (MCAD) is an enzyme involved in mitochondrial fatty acid beta-oxidation which fuels hepatic ketogenesis, a source of energy once hepatic glycogen stores become depleted during prolonged fasting periods or periods of higher energy demands. Incidence of MCAD deficiency in our population is estimated as 1 in 20 000 individuals. Usually MCAD deficiency presents between 3 and 24 months; earlier or adulthood presentation is rare. Clinical presentation of MCAD deficiency is especially rare before 72 hours of life and usually presents as lethargy with hypoketotic hypoglycemia, poor feeding and other symptoms typical for the newborn period (ECG abnormality, seizures, metabolic disorders etc).

We present a 36 hour old term male infant, placed with his mother in a rooming-in situation immediately after birth. The child had normal birth weight, was exclusively breastfed without significant weight loss that would be suggestive for insufficient feeding. At the time of the event the infant was unconscious, non responsive, pale with weak pulses, deeply bradicardic (32/min on HR monitor) but still respiratory compensated (over 90% periphery blood oxygen saturation). Measured dextrose serum level was 0,9 mmol/L which was immediately corrected with 10% dextrose iv. push and continued with dextrose infusion at a rate od 4 mcg/kg/min. Diagnostic testing confirmed one episode of hypoketotic hypoglycemia, mild lactic acidosis and hyperuricaemia, mildly elevated liver enzymes with normal ammonia and electrolyte levels. The episode was highly suspicious for an inborn error of metabolism and the child was transferred to a specialized medical institution where diagnoses of MCAD was confirmed following the analysis of urine organic acids (elevated levels of specific MCAD metabolites excreted in the urin).

Insufficient breast feeding without any other risk factors for development of hypoglycemia in a term infant can produce a life threatening situation in a child born with this specific inborn error of metabolism before the 3rd day of life when inborn metabolic screening is usually done

# P-0025 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

# ANEMIA DURING PREGNANCY IN TRANSPLANT RECIPIENT

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1st Department of Obstetrics and Gyneacology Medical University of Warsaw

#### Abstract:

Post-transplant lymphoproliferative disease (PTLD) affects up to 2.8% of liver transplantation (LTx) recipients. We present the first case report of PTLD in pregnant LTx recipient.

23-y.o. nulliparous women after LTx at the age of 7 due to progressive obliterative cholangiopathy, was consulted in the outpatient clinic at 21 weeks of gestation. The patient did not attend regular appointments. At 28 wks. gestational diabetes, anemia (hemoglobin of 8.0g/dL) and urinary tract infection were diagnosed and the patient was referred to the hospital. Fetal ultrasound revealed no abnormalities. Laboratory tests showed increased levels of CRP-64mg/L, LDH-1823U/L and uric acid-7.2mg/dL. High levels of CMV and EBV IgG were detected. Although two units of packed red blood cells were transfused, further decline in hemoglobin levels was observed (to 7.4g/dL). Marrow biopsy was performed with inconclusive results. On abdominal ultrasound and MRI enlarged disintegrated mases in the left upper quadrant of the abdomen (189x86x60mm, suggesting enlarged lymph nodes) were detected. Since 32 weeks the patient's condition had gradually worsened due to severe dispone and abdominal pain. Moreover, fetal hypotrophy was diagnosed at 30 weeks. At 33 wks. due to imminent fetal asphyxia male newborn of 1640g was delivered via caesarean section. Large tumor mases infiltrating colon were revealed and the colostomy was performed. Histopathologic examination of suspected lesions revealed monomorphic PTLD (Diffused Large B-cell Lymphoma) and the pharmacotherapy (rituximab followed by chemotherapy due to poor response to standard protocol) was introduced. Postoperative period was complicated with the colostomy leakage and peritonitis treated surgically. Critical condition required antibiotic therapy, reduction in immunosuppression and repeated blood transfusions. Although patient's condition is stable, the prognosis remain poor.

Pregnancies after LTx should be carefully monitored for complications related to immunosuppression.

# P-0026 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

### CRITICALLY ILL PATIENT AND DELIVERY-CASE REPORT

<u>Dušan Milenković</u>, Tatjana Ilić-Mostić, Danka Mostić, Žana Ivanković, Aleksandra Suvajdžić Center of Anesthesiology and Resuscitation, Clinical Center of Serbia Clinic of Gynecology and Obstetrics, Clinical Center of Serbia University Clinical Hospital Center "Dr Dragisa Misovic-Dedinje", Department of Obstetrics and Gynecology

#### Abstract:

The critically ill obstetric patients, with all limitations in invasive diagnostic and therapeutic procedures, are challenging to the cinicians involved in her care. Traumatic diaphragmatic injury (TDI) is an uncommon clinical entity, with incidence between 0.8 and 1.6% for abdominal contusions (1, 2). Herniations can present in different phases (acute, latent, or obstructive) and may occur many years later (2).

A 37 years old and 33 weeks pregnant woman was urgently transferred from regional hospitalto intensive care unit (ICU) because of massive left and mild right pleural effusion. The history revealed that she was a known case of celiac disease without symptoms for last 10 years. This was her second pregnancy after 18 years. On admission, she was tachypneic with shortness of breath and strong pain on left side of chest. Other vital signs were stable. A chest radiography showed massive left pleural effusion. Blood tests revealed a high white blood cell (WBC) count (23,12 x109/L) and platelet count of 569x109/L. CRP level was 185 mg/L. Blood chemistry tests showed mild electrolytes disbalance. The arterial blood gas analysis on room air pointed out mild hypoxemia (PaO2: 9,2kPa). Initially patient was treated by double antibiotic (meropenem, teicoplanin) and other symptomatic therapy. Despite two pleural punctures (300ml and 800ml of yellow muddy content) patient did not show any clinical improvement, so thoracic drain was applied. On second day in ICU laboratory studies showed good response on antibiotic therapy (decline in the CRP and WBC), although pleural fluid analysis did not revealed presence of any bacterial culture. However, on next day thoracic drain content changed in color, became brown and smelly. Blood tests indicated sudden increase in WBC count and CRP. A decision for ending pregnancy and emergent Cesarean section under general anesthesia in presence of obstetrician and surgeon was made. Preoperatively patient received corticosteroid therapy for fetal lung maturation. Cesarean section finished successfully (newborn's weight: 1700g; Apgar score: 5). Intraoperatively surgeon revealed diaphragmatic rupture with resulting intra-thoracic incarcerated and ruptured transverse colon. Postoperatively, patient with all signs of septic shock was treated in ICU. Therapy included triple antibiotics (ertapenem, metronidazole, levofloxacine), continuous hemodynamic stimulation (norepinephrine: 0.03-1 mcg/kg/min IV infusion), fluids and other symptomatic drugs. She has been mechanically ventilated for 6 days, when laboratory studies showed significant improvement. During the additional informative talk patient said she had "forgotten to report a small car accident 16 years ago with mild abdominal contusion, and no other injuries". On 32nd postoperative day patient was sent home with her child in good condition.

The diagnosis of TDI is very challenging, especially in pregnancy when radiographic diagnostic procedures are limited. Additionally, pregnancy could increase the risk of acute herniation and incarceration, due to increased intraabdominal pressure. Right time decision for emergent cesarean section could be crucial for optimal fetal and mother outcome.

# P-0027 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

### MANAGEMENT OF PERIPARTUM CARDIOMYOPATHY

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#### Abstract:

**Objectives:** Peripartum cardiomyopathy is diagnosed in the last month of pregnancy until 5 months after birth when signs of cardiac insufficiency appear: altered systolic left ventricle function, FEVS < 45%, left ventricle dilation > 27 mm/m2, with no preexistent cardiomyopathy or other identifiable causes. Recently was described an early form of PPCM at pregnant women, before 36 weeks of pregnancy, when the evolution is similar. The pregnancy- related cardiac dysfunction was mentioned from 1849, and in 1971 was described the peripartum cardiomyopathy like cardiac insufficiency at young patients. The etiology, still unknown, is probably plurifactorial: inflammatory, autoimmune, the action of a peptide from prolactin metabolism. The genetic factor could be also involved, but ESC doesn't recommend genetic tests.

Risk factors are: age > 30 years, obesity, preexistent high blood pressure, nuliparity, multiple pregnancies. Regarding the evolution of the disease, 40% of patients will be asymptomatic after 6 weeks of treatment, in 30% of cases the signs of cardiac insufficiency still exist and in 30% of cases appear death in the first 4 years. PPCM is complex pathologic status, being a rare cause of cardiac insufficiency. We put the diagnosis in our patients on clinical signs of cardiac insufficiency and the systolic dysfunctions in ultrasound.

**Material and method:** In all of our patients, the echocardiography showed systolic dysfunction of left ventricle, the dilation of left ventricle, but a normal thickness of ventricle walls, secondary mitral insufficiency, left ventricle ejection fraction  $\leq 45\%$ . The MRI could exclude myocarditis. Treating this condition means conventional therapy of the cardiac insufficiency with systolic dysfunction (but no IAEC, antialdosterone medication in pregnant women), concordant with ESC guides . Important is to associate inhibiting agents of PRL secretion. Unconventional treatment could be cardiac resynchronization therapy, or cardiac transplant. Anticoagulant therapy is recommended for prevention of thromboembolism.

**Results:** We experienced in our clinic 5 cases in the last 18 months. The onset of the symptoms was before labor in 4 cases and appeared antepartum with dyspnea, fatigability/ asthenia. Only one pacient was diagnosed in the first week after vaginal birth at term. After the diagnosis was established and cardiac specific treatment associated with antiprolactine was administered, the evolution was favorable in all cases.

**Conclusion:** PPCM is a vascular disease of unknown etiology, included in the list of rare diseases. The diagnosis is by excluding other pathologies and the criteria must be respected to avoid sub/supraevaluation of this cardiac condition

# P-0028 | POSTER | CRITICALLY ILL PATIENT IN PERINATAL MEDICINE

# MASSIVE INTRA-ABDOMINAL BLEEDING IN PREGNANCY DUE TO DECIDUOSIS – A CASE REPORT

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#### Abstract:

Deciduosis is an extrauterine location of decidual tissue due to high levels of progesterone during pregnancy. It is usually a benign and asymptomatic condition, remaining undetected throughout the pregnancy with total involution in the post-partum. Life-threatening complications such as massive intra-abdominal bleeding are rare.

She presented at the obstetric emergency department after a sudden episode of mild abdominal pain, dizziness and lipothymia. At first evaluation she was pale, hypersudoretic and hypotense, exhibiting painful and tense abdomen with signs of peritoneal irritation. No blood loss or cervical changes were detected in gynecological examination. At transvaginal ultrasound, fetal cardiac activity was positive and there wasn't free liquid in the douglas pouch. Abdominal ultrasound revealed an hemoperitoneum in relation with left anexial region.

The haemoglobin value dropped from  $9.7\,\mathrm{g/dl}$  at admission to  $7.5\,\mathrm{g/dl}$  in 1 hour. Exploratory laparotomy was performed and a massive bleeding was confirmed. A vesicular yellow tissue covered the left lateral and posterior wall of the uterus and the left ovary. The bleeding site was identified at the left uterine vascular territory. The patient developed a state of disseminated intravascular coagulation reaching  $3.9\,\mathrm{g/dl}$  of hemoglobin. Transfusion support of blood and platelets was needed. A fibrin sealant patch was used to optimize the hemostasis. Transabdominal sonography performed immediately postoperatively revealed fetal loss. The patient was transferred to the intensive care unit. After 24 hours, there was spontaneous expulsion of the fetus and placenta. She was discharge at day 10 of post-operatory.

Histological evaluation of tissue samples confirmed the diagnosis of deciduosis. In the setting of a massive intra-abdominal bleeding during pregnancy, haemorrhagic deciduosis must always be considered. It is important to distinguish this benign, self-limiting condition from others, like malignant neoplasms, since it can influence future management.

# P-0029 | POSTER | DIABETES DURING PREGNANCY

# MODIFIABLE RISK FACTORS FOR GESTATIONAL DIABETES MELLITUS

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#### Abstract:

**Objectives** Pregnancy is considered a real metabolic challenge and a key moment for the development of subsequent maternal overweight or obesity-related complications such as gestational diabetes mellitus (GDM). Literature studies constantly report certain risk factors for GDM: family history of diabetes, previous GDM, advanced maternal age, being overweight or obese, fetal macrosomia, smoking. Among these factors, diet and regular physical exercise are modifiable, therefore educating patients could help prevent GDM and its related maternal and fetal complications.

The aim of this study is to present our experience in the prevention of GDM in a group of 204 pregnant patients with detected risk factors.

**Methods** A group of 204 pregnant patients with detected risk factors for GDM was enrolled in the study between April 2016 and April 2017. All patients were admitted in the Emergency University Hospital in Bucharest and followed-up at regular visits during pregnancy. A questionnaire was given to record patients' family history of cardiovascular disease, obesity and diabetes, lifestyle, diet, smoking and self-medication. Data about patients' pre-pregnancy BMI and gestational weight-gain was also recorded. At 24-28 weeks of gestation, all patients performed a 75g oral glucose tolerance test and pregnant patients with impaired glucose tolerance (IGT) were selected. These patients were put on a prudent diet, with a high intake of vegetables and white meat and were advised to quit smoking.

**Results** The prudent diet had a positive impact on the gestational weight gain in the third trimester of the pregnant woman found to have an IGT, lowering the risk for obesity. Interestingly, the patients who had an active life before pregnancy and a moderate physical activity during pregnancy, gained less weight. Those who quit smoking and who supplemented their diet with vitamin D, C and iron also had better pregnancy outcomes.

**Conclusions** Changes in modifiable risk factors (healthy diet, exercise) among pregnant women, especially overweight or obese, may reduce the risk of GDM and subsequent complications for both mother and fetus. Moreover, action upon these risk factors should be taken earlier than second or third trimester for better results.

# P-0030 | POSTER | DIABETES DURING PREGNANCY

# DOPPLERFLUXOMETRY OF MIDDLE CEREBRAL ARTERY FOR FETAL SURVEILLANCE IN GESTATIONAL DIABETES MELLITUS

<u>Carla Beatriz Pimentel Cesar Hoffmann,</u> Andrea Maria Andraus Dantas, Matheus Leite, Mariana R. Vieira, Augusto Radunz Amaral, Jean Carl Silva *Darcy Vargas Maternity* 

#### Abstract:

**Objectives**: The presence of fetal polycythemia in pregnant women with GDM maybe indicative of fetal hypoxia caused by maternal hyperglycemia. In order to find a method to evaluate the degree of fetal impairment in patients with GDM, this study compared MCA-PSV of this group with pregnant women without GDM.

**Methods:** A cross-sectional study was performed. Data was collected before treatment of GDM. A total of 239 patients were included, 116 for the case group and 123 for the control group. The patients diagnosed with GDM according to ADA criteria are in the study group. The maternal data evaluated were: age, parity, BMI, gestational age at the time of the evaluation, glycemic profile and glycated hemoglobin (HbA1C). The evaluated fetal parameters were: abdominal circumference, weight, volume of amniotic fluid, umbilical artery pulsatility index (UA-PI), middle cerebral artery pulsatility index (MCA-PI) and systolic velocity peak(MCA-PSV) and cerebro placental ratio (MCA/UA). MCA-PSV values below 1 MoM were considered as fetal polycythemia.

**Results:** Was found significant difference in MCA-PSV between the median of the groups. When the categorical value was evaluated, the presence of MCA-PSV of less than 1 MoM was more prevalent at the group of cases.

**Conclusions:** Fetuses of pregnant women with GDM present MCA-PSV significantly lower than pregnant women without GDM. Among the Doppler fluxometric parameters evaluated, the MCA-PSV was the only one that presented significant difference between diabetic and non-diabetic pregnant women. MCA-PSV was shown to be a more discriminatory fetal parameter of fetal impairment in diabetic pregnant women than the MCA-PI.

**Keywords**: fetal well being, doppler, gestational diabetes mellitus

# P-0032 | POSTER | DIABETES DURING PREGNANCY

# COMPARISON OF FETAL LIVER LENGTH OF DIABETIC AND NON-DIABETIC FILIPINO MOTHERS AT 14 TO 40 WEEKS GESTATIONAL AGE

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#### Abstract:

**Objective** This study aims to correlate fetal liver length and diabetes in pregnancy in Filipino women, determining its use as a parameter to determine maternal glycemic control. Proper identification and timely management of poor maternal glycemic control may lessen maternal, perinatal and neonatal morbidity.

**Methods** A total of 160 pregnant women with a live singleton pregnancy between 14 to 40 weeks gestational age, seen at the Obstetrics Out-patient Department Unit were included in the study. Subjects were classified into non-diabetic (n=122) and diabetic (n=38). Diabetic subjects (84% were diet-controlled) were further classified into having gestational diabetes (32 subjects) and overt diabetes (6 subjects). All underwent two sonographic measurements of the fetal liver length by a single sonographer, who was blinded as to the glycemic status of the subject. Measurements were analyzed using t-test to compare liver lengths between non-diabetic and diabetic subjects.

**Results** Analysis showed that liver lengths for diabetic subjects were larger compared to non-diabetic subjects, but that it was only significant for mothers with overt diabetes.

**Conclusion** The fetal liver lengths of overt diabetic Filipino mothers at 14 to 40 weeks gestational age were significantly larger compared to non-diabetics. There was no statistical difference in fetal liver lengths in those with gestational diabetes and those who were non-diabetic.

**Keywords:** Fetal liver length, Sonographic fetal liver length, Gestational diabetes mellitus, Overt diabetes

### P-0033 | POSTER | FETAL BIOMETRY FOR GROWTH DISORDERS

# THE CHARACTERISTICS AND SIGNIFICANCE OF IDIOPATHIC FETAL GROWTH RESTRICTION IN SINGLETON LATE PRETERM AND TERM PREGNANCIES

Sachie Suga, Ichiro Yasuhi, Makoto Nomiyama, Tomoya MIzunoe, Naofumi Okura, Kosuke Kawakami, Masanobu Ogawa, Takashi Kodama, Katsuhiko Tada, Moe Yorozu, Yuka Maekawa, Masahiro Sumitomo, Kazuhisa Maeda, Kimikazu Hayashi Nagasaki Medical Center/Obstetrics and Gynecology

#### Abstract:

**Objective:** In some cases with light-for-date (LFD) infants born at late preterm and term, we cannot find any causes associated with fetal growth restriction (FGR). The management protocol is still unclear in such idiopathic FGR cases. We aimed to demonstrate risk factors associated with adverse neonatal outcomes in cases with idiopathic LFD infants born at late preterm and term.

**Methods:** This is a retrospective multicenter study in Japan, we included cases with a LFD infant born at 34 weeks' gestation or later whose cause of growth restriction was not clinically identified in either maternal, fetal, or placental conditions in singleton pregnancies. We defined combined neonatal complications including respiratory disorders, clinical hypoglycemia, and hyperbilirubinemia as adverse neonatal outcomes. We investigated maternal and perinatal factors associated with adverse neonatal outcomes.

**Results:** We included 686 singleton pregnancy cases of a LFD infant born at late preterm and term in 2011-2013. Among them, we identified 404 (59%) cases of idiopathic FGR. The diagnosis of FGR during pregnancy was made in 67% of the cases. In multivariate analysis, GA at delivery (adjusted-OR 0.64 [95%CI 0.54-0.76]) and BW z-score (a-OR 0.40 [95%CI 0.22-0.71]) were independently associated with the adverse neonatal outcomes. Regarding cases with a late preterm LFD infant, only the diagnosis of FGR during pregnancy was a significant predictor of the adverse neonatal outcomes (a-OR 7.56 [95%CI 1.84-33.5]).

**Conclusions:** In singleton idiopathic LFD infants born at late preterm and term, GA at delivery and severity of growth restriction were associated with the adverse neonatal outcomes. In terms of late preterm LFD infants, the diagnosis of FGR during pregnancy was an only predictor of adverse neonatal outcomes.

### P-0034 | POSTER | FETAL MEDICINE

# CONGENITAL ANOMALIES DIAGNOSED PRENATALLY IN THE FETAL DIAGNOSIS AND THERAPY UNIT, UNIVERSITY HOSPITAL OF THE WEST INDIES, JAMAICA

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#### Abstract:

**Objectives:**The Fetal Diagnosis and Therapy unit was established in July 2008 and is the only hospital in Jamaica staffed with Maternal-Fetal Medicine Specialists. A review of anomalies seen was published after the first 18 months of the units inception The objectives of this study was to review the incidences and pregnancy outcomes of congenital anomalies diagnosed from the units inception until December 2015.

**Methods:** A search was done of the units' database and the special care nursery admissions logbook to identify all anomalies seen during the study period. Data was then extracted from the database and physical patients charts, inclusive of maternal demographics, nature of the anomalies diagnosed, course of pregnancy, perinatal outcomes, antenatal and postnatal interventions. Data was anonymised to protect confidentiality and entered into an excel spread sheet which was used for statistical analysis.

**Results:** Total births between July 2008 to December 2015 was 17, 133. One hundred and eighty four anomalies were seen, yielding an incidence of 1.1%. One hundred and four (56%) were referred from peripheral sites, while 74(40%) were registered patients of the hospital. A median of 22 (range 20-29) anomalies were seen yearly. Mean maternal age and weight were 29.3  $\pm$  6.6 years and 69.1  $\pm$ 13.5 kg respectively, median parity 1 and gravidity 2. Maternal medical disorders were found in 35 cases (19%). Mean gestational age at the time of prenatal diagnosis was  $24 \pm 5.7$  weeks.

Most anomalies were seen in the genitourinary system (25.5 %) followed by chromosomal (22.8%), central nervous (21.2%) and gastrointestinal systems (8.7%). Sixty four (34.8%) patients had ancillary investigations; fetal echocardiogram, amniocentesis, TORCH titers and fetal MRI.

The majority of patients were external referrals (56.5%) and returned to their site for continued care. Sixty three (34%) cases were delivered at term, 60 (32.6%) patients terminated the pregnancy and 10 (5.4%) had an intrauterine demise. Mean gestational age at delivery was 33 weeks. Median birth weight was 2.68 kg. There were 12 (6.5%) neonatal deaths, 10 (5.4%) cases required neonatal surgery. Autopsy results were available in 18 (22%) cases. Prenatal diagnosis correlated with postnatal findings in 91.2% (31/34 in whom postnatal data was available).

**Conclusion:** The incidence of anomalies in our institution is similar to that previously published (1.1 vs 1.5%). Genitourinary, chromosomal, central nervous system and gastrointestinal disorders remain the most frequently seen anomalies.

# P-0035 | POSTER | FETAL MEDICINE

### INCREASED NT: IS ASSOCIATED WITH ADVERSE OUTCOME

Moghtadaei Parisa, Nikpour Fatemeh *Laleh Hospital* 

Abstract:

**Objective:** To assess pregnancy outcomes, fetal outcomes, infant outcomes with normal karyotype fetus with isolated increased NT

**Method & Materials:** Prospective cohort study of singleton pregnancies between 2013-2016 was performed. All fetuses with NT>95th percentile with normal karyotype were enrolled. Structural abnormalities, genetic syndrome, pregnancy outcome, information up to one year after birth was evaluated

**Results**: From 16200 women screened for FTS, 550 patients had a NT>95th percentile who all of them undertook fetal karyotype assessment. 322 fetuses had normal karyotype. All cases were observed through the pregnancy and one year after birth.

**Conclusion:** All the fetuses with increased NT and normal karyotype needed detailed anomaly scan during 18-22 weeks and 32-35 weeks, and full assessment after birth for pregnancy outcomes and infant outcomes

**Key words:** NT, normal karyotype, pregnancy outcome

### P-0036 | POSTER | FETAL MEDICINE

# ULTRASOUND IN SECOND TRIMESTER IN A DIAGNOSIS OF HOLT-ORAM SYNDROME – A CASE REPORT

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#### Abstract:

Holt–Oram syndrome is an autosomal dominant disorder characterized by skeletal abnormalities of the upper limbs and shoulder girdle and a congenital heart lesion. Most common finding in HOS is a triphalangeal thumb with a secundum atrial septal defect (ASD), but there is also a wide spectrum of different heart and skeletal lesions. HOS is the most common form of cardiac-limb syndrom with the estimated prevalence of 0,95 cases per 100 000 births. It is caused by TBX5 gene mutation as it has been demonstrated that this gene has a crucial role in the development of upper limb bones and heart, especially in the cardiac septation.

About 85% of all the cases are caused by de novo mutations, while 15% of all the cases were inherited from a parent who has this disorder.

A 34-year old patient was admitted to the Department of Gynecology and Obstetrics, Cantonal hospital Zenica, GOPO, at 38+5 gestation weeks with the rupture of membranes (ROM), meconial aminotic fluid and cervical dilatation of 2 cm. She conceived this pregnancy after 6 years of sterility through insemination. Her obstetric history revealed abnormal development of fetal upper limbs which had been firstly noticed at 14 weeks of gestation. No other fetal abnormalities had been noticed. She underwent amniocentesis at 18 weeks of gestation and allegedly its findings were normal with healthy 46,XX karyotype. Due to the unfavorable obstetric findings and the potential fetal asphyxia, the delivery was completed via caesarean section and the patient delivered a female child, 3200/49, Apgar score 8/9, sat02-91%, FHR-115. However, physical examination of the baby revealed the upper limb abnormalities with shorter forearms, deformed wrists with volar flexion, longer fingers and cyanosis on the acral parts of the body. RTG examination, heart and brain ultrasound had been performed. RTG of the upper limbs had shown the billateral absence of radial bone. Heart ultrasound had revealed an opened Botalli foramen, ASA, muscular ventricular septal defect (VSD) and a restrictive DAP, while the brain ultrasound had been normal. Due to the specific clinical features of the baby and the RTG and heart ultrasound findings, Holt-Oram Syndrome was assumed to be the diagnosis of the baby. The baby was referred to a pediatrician, an orthopedic and child surgeon and physiotherapist for further treatment.

The aim of this case report is to emphasize the importance of an ultrasound examination in the second trimester in the diagnosis of a congenital bone disorders.

As this syndrome is caused by gene mutations, a detailed gene analysis of the baby and her parents had been advised to the patient, especially for the next pregnancy. If an IVF/ICSI and subsequent embryo transfer will be performed, a preimplantation genetic diagnosis (PGD) was also suggested.

Key words: Holt-Oram Syndrome, TBX5 mutation, radial bone absence

### P-0037 | POSTER | FETAL MEDICINE

# CONGENITAL CYSTIC ADENOMATOID MALFORMATION - A CASE OF SIGNIFICANTLY REGRESSION AFTER BETAMETHASOSE ADMINISTRATION

<u>Alberto Borges Peixoto</u>, Raquel Margiotte Grohmann, Thalita Diógenes Muniz, Amanda Pinheiro Loretti, Tatiane Boute, Bruno Rodrigues Toneto, Edward Araújo Junior, Luciano Marcondes Machado Nardozza, Liliam Cristine Rolo Paiato

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#### Abstract:

**Introducion:** Congenital cystic adenomatoid malformation (CCAM) is a multicystic mass of pulmonary tissue, occuring because of a proliferation of terminal bronchial structures, causing a failure of bronchiolar maturation at first trimester. Unilobar manifestation is more common and CCAM shows an incidence around 1:10.000 -1:35:000. It has known that a peak CCAM growth is expected to occur by 28 weeks, and regression or estabilization after this time. In a small number of fetuses, the cysts grow rapidly causing larger lesions and hydrops. In this cases, the fetal management is recommended to improve the perinatal prognosis.

**Related Case**: A 19-year-old G1 P0 , of nonconsanguineous marriage, had a normal antenatal course until 23 weeks of gestation. In routine ultrasound examination, a large cystic lesion (with 20 cc) in fetal chest was noted. Repeat ultrasound scans revealed progressive growth of cystic lesion in left hemithorax, causing mediastinal shift. At 31 week as the volume of lesion was 57.1 cc, antenatal administration of systemic corticosteroid (betamethasone) was indicated. After that, it was observed that the lesion volume has presented regression to 5.9 cc.

**Conclusion:** In front of progressive lesions of CCAM, previous studies have shown that fetal/perinatal mortality is close to 100%. In addition, the diagnosis of a large CCAM may also have maternal implications as premature delivery, "mirror syndrome, severe polyhydramnios, and premature ruptured of membranes. Despite of the mechanism of action on regression of pulmonary injury to remain unknown, the antenatal administration of systemic corticosteroid can be used in larger lesions of CCAM, especially if they present high risk of development of hydrops and fetal death, reducing significantly mortality rate.

# P-0038 | POSTER | FETAL MEDICINE

#### EARLY ULTRASOUND EVALUATION OF THE FETUS

Sheryl Watkin, Aparisi Gomez MP *Auckland City Hospital. New Zealand* 

Abstract:

**Learning objectives:** The purpose of this educational poster is to illustrate the importance of the 11-13+6 scan in terms of reviewing fetal anatomy, using an example of finding a unilateral cleft lip (and presumed cleft palate) at 13+5 weeks.

**Background:** Cleft Lip and Palate are common birth defects affecting the face. A cleft lip affects the upper lip. A cleft palate affects the roof of the mouth. These abnormalities may occur together or separately. The 11-13+6 week ultrasound is the first detailed examination of the fetus. It is used as a screening test for chromosomal abnormalities in conjunction with a blood test. With the implementation of Non-Invasive Prenatal Testing (NIPT)l there is a non-invasive way to test for chromosomal issues in DNA from 10 weeks.

However there are some limitations to NIPT testing. The blood test does not look at every chromosome, therefore potentially not diagnosing genetic disorders or some fetal abnormalities.

**Conclusion:** The 11-13+6 week ultrasound looks for anatomical abnormalities which may be associated with generic disorders which will not be detected accurately by NIPT.

# P-0039 | POSTER | FETAL MEDICINE

# HEREDITARY APERT SYNDROME: A CASE REPORT

Amira Alkourdi Martínez, Amira Alkourdi Martinez, Mariña Naveiro Fuentes, Javier Malde Conde Alberto Puertas Prieto, Maria Paz Carrillo Badillo *H.U: Virgen de las Nieves* 

#### Abstract:

**INTRODUCTION:** Apert syndrome is a rare genetic disorder caused by a mutation in the FGFR2 gene. Inheritance is autosomal dominant, although the syndrome generally occurs as a result of a de novo mutation.

**METHODS**: The mother was 27year, three children from previous relationship. Week 30 ultrasonographic examination disclosed suspected lobar holoprosencephaly and polyhydramnios.

Her current partner and putative father of the fetus was a 38year showed prominent forehead, flat occiput, hypertelorism, and fusion of the three central fingers of both hands. In an obstetric ultrasonographic examination done findings were moderate polyhydramnios and abnormal features in the cranial anatomy consisting of flat occiput, depressed nasal bridge, prominent forehead and closure of the coronal suture. Fusion of the anterior horns and mild bilateral colpocephaly were also seen. Also was presented severe hand and foot malformations. Magnetic Resonance Imaging confirmed the anatomical abnormalities in the head consistent turribrachicephaly. Right occipital plagiocephaly due to local flattening of the cranial vault was observed. These features were all indirect signs of craniosynostosis. Squaring of the anterior horns, possible fusion of the mammillary bodies and moderate ventriculomegaly in the occipital horns.

Apert syndrome was suspected and amniocentesis was done for confirmed it. Genetic studies in both the father and the fetus disclosed a heterozygous c758C>G (p.Pro253Arg) mutation in the FGFR2 gene compatible with a diagnosis of Apert syndrome.

When informed of the results of these studies, the mother and her partner decided to have the pregnancy terminated legally at week 33. On macroscopic observation the fetus had characteristics compatible with Apert síndrome.

**CONCLUSIONS**: The diagnosis is often reached on the basis of ultrasound examination in the second trimester, at approximately week 20 thanks to advances in traditional and three-dimensional ultrasound methods because their several clinical characteristics, but requiered genetic tests to confirmed.

# P-0040 | POSTER | FETAL MEDICINE

#### PREGNANCY AFTER SIMULTANEOUS KIDNEY AND PANCREAS TRANSPLANT

<u>Žana Stanić</u>, Marko Vulić, Esma Čečuk Clinical Hospital Center Split, Croatia

#### Abstract:

Women with end-stage organ disease often suffer from hormonal imbalance which leads to infertility. Modern surgical techniques together with advances in immunosuppressive therapy prepared the ground for successful allogeneic transplantation, which enabled conception and successful pregnancy in numerous transplant patients. However, although pregnancy is common after the transplantation of all solid organs, there are still limited experiences of successful pregnancies and deliveries after simultaneous pancreas and kidney transplant (SPKT). The presence of two transplanted organs within the pelvis poses risk to both mother and fetus. SPKT recipients have increased risk of miscarriage, preterm birth and fetal malformations as well as risks of preeclampsia, infection, pancreas-graft pancreatitis and deterioration of maternal renal function. It is recommended to delay conception to at least one year after transplantation. Graft should be functional, without any sign of rejection.

The best results are received from patients with planned pregnancies, previously normalized blood pressure and stable immunosuppressive doses. We present a case of 33 year old woman, previously diabetic type 1 and end-stage renal failure patient, a SPKT recipient, who experienced unplanned pregnancy a year after successful SPKT. After initial uneventful course of pregnancy, it was later complicated with hypertension and preterm labor. Despite several difficulties in management of this pregnancy, the patient delivered healthy premature newborn. She had normal postpartum course and graft function. A year after delivery her renal and pancreatic function were normal. In order to achieve the best fetal and maternal outcomes, all of SPKT patients who want pregnancy, or become pregnant unintentionally, should be managed by multidisciplinary team experienced in management of obstetrical, nephrology, and transplant urgencies.

#### P-0041 | POSTER | FETAL MEDICINE

### **MOSAIC TRISOMY 8: CASE REPORT**

<u>Danijel Bursać,</u> Katarina Bojanić, Jasenka Zmijanac Partl, Ratko Matijević, Željko Duić *University hospital Merkur, Department of obstetrics and gynecology* 

#### Abstract:

Mosaic trisomy 8 (MT8) which is also known as Warkany syndrome 2, is well described chromosomal disorder defined with the existence of three copies of chromosome 8 in some cells of organism. Complete trisomy 8 is very rare and usually is lethal. It occurs in 0,8% of spontaneous pregnancy loses. Incidence rate varies between 1 in 25,000 and 1 in 50,000 births and is more common in males. It displays certain phenotype varieties from normal individuals up to severe malformations. They can or cannot be seen by prenatal diagnostic (US or MRI). The MT8 is characterized by intracranial (agenesis of the corpus callosum, hydrocephalus), face, neck and skull anomalies (everted lips, large dysplastic ears, prominent fore head, broad nose, microphtalmia, cataract), gastroninestinal (diaphragmatic hernia, esophageal atresia, absence of gallbladder), genitourinary (hydronephrosis, reflux), skeletal system anomalies (vertebral anomalies, joint contractions, abnormal metacarpals and metatarsals), congenital cardiovascular disorders (VSD, ASD, great vessel anomalies), deep palmar and plantar lines, neoplastic and hematological disorders. Deep plantar creases are highly characteristic of trisomy 8 mosaicism. Prenatal diagnostic of these very rare syndromes is uncommon. When ultrasound findings are consistent with trisomy 8, prenatal karyotyping should be undertaken. In this abstract we present a case of fetus trisomy 8 mosaicism diagnosed postnatal with complete karyotype. A 40year female patient P0 G0 in 22nd week of gestation transferred in our fetal medical clinic for detailed US exam with suspicion on multiple fetal malformations.

The patient is female Caucasian without consanguineous marriage, previous illness, alcohol abuse or cigarette smoking in her medical history. This was spontaneous pregnancy. Gestation was regular until the 22nd week when suspicious malformations were found. During US exam in our clinic bilateral hydronephrosis and bilateral asymmetric ventriculomegaly was found. Patient refused suggested amniocentesis. In 24th week of pregnancy during oral glucose tolerance test, gestational diabetes diagnose was formed. The patient was hospitalized in 38th week of gestation for observation and planned termination of pregnancy. During 39th week patient developed gestational hypertension, which did not respond to medical antihypertensive therapy.Due to potential fetal asphyxia delivery was terminated with an urgent Caesarean section. Newborn male, birth weighting of 2940g/50cm, APGAR score 9/10 was delivered. Newborn baby had external dysmorphia appearance (prominent forehead, asymmetrical neurocranial bones, hypertelorism, strabismus, broad nose, everted lips, hypognatia, lower positioned and dysplastic ears). Hands have deep longitudinal plantar crease. On feat toes hypoplastic nails were present. Thorax was narrow with wide spread mammillas. Patient had slight deviation from normal in perianal region. Due to dysmorphia appearance, newborn was transferred on 6th day after delivery to the Department of genetic disorders, were karyotype was done. After the karyotype was done final diagnosis of mosaic trisomy 8 was confirmed (mos 47, XY, +8[5]/46, XY [18]). In multiple malformation of fetus modern prenatal diagnostics plays an important role. Use of imaging techniques (US, MRI, etc.) can exclude most frequent chromosomal disorders (T21,T13,T18). In differential diagnosis we always have to have in mind mosaicism trisomy 8 or Warkany syndrome, as a potential diagnose of multiple fetal malformation.

# P-0042 | POSTER | FETAL MEDICINE

# TAR SYNDROME PRENATAL DIAGNOSTIC, CASE REPORT

<u>Vladimir Janjić, Snežana Crnogorac</u> Clinical Center of Montenegro, Department of Gynecology and Obstetrics

# Abstract:

TAR Sy is a rare, severe genetic disorder of fetus with a frequency of 1:30-80,000 pregnancies. It is characterized by thrombocytopenia, absence of radius, with presence of thumb with regular position, abnormal position of the hand, possible shortened long bones of the extremities. In 50% of cases the change is mutual. It is most often detected on a routine ultrasound examination of 16-18 gw.

Radial ray malformation should be excluded by Differential diagnostic in case when the thumb is missing.

A 32 years old patient, second pregnancy, nulliparous, (one missed abortion with 8gw) with 23 weeks of gestation pregnancy, and with no complications until then, was sent to our institution for expert ultrasound examination. At the ultrasound examination, biometry was adequate to 23 weeks of gestation, apart from the length of the ulna. The lower extremities were of regular morphologies as well as the upper arms, the bones of perfect homogeneity. Both ulnas were shorter, they were adequate to 19 gw while both radius were missing, with the characteristic position of both hands.

Both thumbs had normal morphologies and positions. Other findings on fetus were neat.

The patient was sent to Congenital Anomalies Consilium for further examinations and then to the Ethical Committee that approved the termination of the pregnancy at the request of the pregnant woman.

Children born with this syndrome, due to the risk of bleeding in 40% of cases, die in their early childhood. Since this is about a severe anomaly, it is very important to detect this syndrome during the pregnancy as soon as possible.

# P-0043 | POSTER | FETAL MEDICINE

### PERINATAL RESULT FOR ANTENATAL DIAGNOSIS OF CYSTIC HYGROMA

<u>Manuel Guerra</u>, Francisco Gonzalez, Maria Teresa Haye, Jorge Gutierrez *Hospital Clinico San José* 

#### Abstract:

**Introduction:** The cystic hygroma (CH) is a congenital malformation of the lymphatic system, characterized by excessive accumulation of lymphatic fluid in the posterior cervical region of the fetus, which is associated with poor perinatal outcome. It has an incidence of 1/250 ultrasounds of the first trimester but its incidence at birth is 1/6,000-12,000 births. Traditionally CH is associated with a poor prognosis: high association with aneuploidies, cardiac malformations, and hydrops; because of this, it is described up to 60% of termination of pregnancy (TOP) in Europe.

The objective of this report is to present cases of controlled CH in a 5-year period in a public hospital in Chile, a country without abortion laws.

**Methods:** Retrospective, longitudinal study of patients evaluated in the Fetal Medicine Unit of the San José Hospital Center, with the diagnosis of Cystic Hygroma.

**Results:** Between the years 2014 and 2017, 32 patients with a diagnosis of CH were referred to the unit, of which 29 were confirmed (3 deaths at the time of the first control). The incidence was 1.2 / 1000 births in the first trimester and 0.3 / 1000 at term. Hydrops was diagnosed in 8/29 and major malformations in 8/29: 7 cardiac malformations, one case of omphalocele, and hypospadia. The most frequent heart diseases were septal, AV channel, one case of transposition of large arteries, and one case of single ventricle. Of all patients, in a 48,3% we found a poor prognosis condition (hydrops and / or some malformation), and it was a 51% of abortions or stillbirths, with a median GA of 21 weeks (17-24 w), being all in patients with those factors of poor prognosis. The strongest factor was the presence of hydrops, which was associated with 100% of mortality. Given the high intrauterine mortality, we only have a chromosomal study or evaluation by geneticist in 14 patients, in 11 of whom aneuploidy is confirmed. The most frequent were the monosomy of the X chromosome (Turner Syndrome) and the trisomy of chromosome 21 (Down Syndrome), with 5 and 4 cases respectively; of them, the Turner Syndrome concentrated the maternal age under 35 years, and over 40 years all were Down Syndrome. There was a case in which given the association of hypospadia and micrognathia, raised the suspicion, of Wolf-Hirschhorn syndrome, which was prenataly confirmed.

9 patients end with full term pregnancy but only 3 were born with normal karyotype, without anatomical alterations and were discharged with their mother without complications. Microarray was not performed because this technique is yet not available to us.

**Conclusion.** The Cystic Hygroma is an entity that is associated with poor perinatal outcome: high incidence of abortion / stillbirth, aneuploidies, and especially cardiac malformations. The most important factor was the presence of hydrops. The most frequent aneupolidias are: Turner Syndrome and Down Syndrome, being this more frequent over the age of 40 years.

# P-0044 | POSTER | FETAL NEUROLOGY

# A CASE REPORT OF A TERM BABY WITH UNILATERAL GRADE 4 INTRAVENTRICULAR HAEMORRHAGE (IVH)

Michail Sergentanis, Ariana Spungina Sanjay, Raina Amith Nuti *Paediatric Dept., The Princess Alexandra Hospital* 

#### Abstract:

**Introduction:** Intraventricular haemorrhage (IVH) occurs in preterm infants.IVH is rare in term neonates. The main source of IVH in term neonates is choroid plexus. The most common clinical symptoms are seizures and poor feeding. One third of IVH are graded as 3 to 4.

**Method:** A term baby was born by uncomplicated normal vaginal delivery at a district general hospital. On day 4 of life, baby was noted to have right-sided brief, jerking movements. The pregnancy was uneventful and antenatal scans were normal.

Results: On examination, baby was noted to have a full anterior fontanelle. Neurological examination was unremarkable. MRI head showed grade 4 germinal matrix haemorrhage in the left ventricle with parenchymal involvement (image 1). Repeat MRI head at 6 months of age showed asymmetrical ventricles with dilated left ventricle. There were remnants of old blood in left ventricle posterior body, occipital horn and atrium areas. On subsequent follow-up, baby started to develop mild weakness of right side of the body. However, there were no significant seizures reported thereafter. There were no coagulation abnormalities. EEG did not reveal any epileptiform activity although baby showed automatic movements during the procedure. Neurodevelopmentally, baby is achieving milestones when she was followed up at 8 months of life.



**Conclusion**: Reported literature shows bilateral IVH and the majority of cases are secondary to coagulation abnormalities and dehydration secondary to poor feeding at birth. Irrespective of aetiology, such babies need regular neurodevelopment monitoring for sequelae associated with periventricular leucomalacia.

# P-0045 | POSTER | FETAL NEUROLOGY

# ROLE OF MAGNETIC RESONANCE IMAGING IN PRENATAL DIAGNOSIS OF CENTRAL NERVOUS SYSTEM DEFECTS

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#### Abstract

**Objectives.** Among diagnostic capabilities to detect central nervous system (CSN) defects in prenatal life, sonography and magnetic resonance imaging (MRI) are applied in routine clinical practice. Despite years role of MRI in prenatal imaging is still controversial. The goal of this study was to assess the accuracy of prenatal MRI in the characterization of major fetal central nervous system anomalies in compare to postnatal diagnosis

**Methods.** This was a prospective observational study conducted between January 2015 and June 2016. 43 subjects were referred to prenatal MRI (pMRI) investigation in the third trimester, were included. After birth all cases undergone to neonatal MRI (nMRI). Results were divided into 3 groups: (1) pMRI and nMRI concordant; (2) pMRI and nMRI discordant; (3) pMRI and nMRI discordant without prognostic importance.

**Results.** pMRI and nMRI were concordant in 27 on 43 cases (11 midline defects, 7 ventrikulomegaly, 6 posterior fossa defects, 3 migration disorder) pMRI and nMRI were discordant in 15 cases (4 midline defects, 10 posterior fossa defects, 1 migration disorder). In 1 case pMRI and nMRI were discordant without prognostic importance (midline defect)

**Conclusion.** In most cases diagnoses in pMRI and nMRI were similar. Particularly in diagnosing midline defects. It's worth to consider to replace postnatal scanby prenatal one. At the same time, we should regard that most of disagreement were in posterior fossa defects

### P-0046 | POSTER | FETAL THERAPY

# NON-PHARMACOLOGICAL TREATMENT OF PROCEDURAL PAIN IN LONG-TERM NEONATES

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# Abstract:

**Introduction:** The control of procedural pain in newborns is an ethical act and requires treatment. Homeopathic remedies are also a part of the non-pharmacological agents group. Their use during the neonatal period is based on their good tolerability, efficiency and high level of safety.

**Purpose**: To compare the effect of the use of Arnica D30 and Sol.Glucosae 25% to reduce neonatal pain as a result of the heel-stick in connection with neonatal screening.

**Methods**: 164 long-term infants are investigated -(A)-control group n=67; (B)-treated with Arnika D30 n=57 and (C)-analgesic treated with Sol.Glucosae 25% n=40 , middle aged 72-84 hours, born with : normal mechanism-41.5%, cesarean-55.4%, forceps-1%, vacuum-2.1%. No data on perinatal asphyxia. The child's reaction to pain is recorded with CCTV before, during and after neonatal screening, and its severity is assessed according to the NIPS and NFCS scales 30sec. and 5 min after the procedure. Descriptive and graphical analysis are used to present the results and compare the average values between groups - Independent Samples T test.

**Results:** Pain assessment with NIPS does not show statistically significant differences in severity 30sec. after the procedure. When comparing the three groups at 5 min. there is a true difference between the total A / B and A / C medium values that are lower compared to the non-analgesic group. The B / C ratio does not show any significant difference despite the lower average values of the score for patients received Arnica D30.

NFCS pain tracking at 30sec shows significant differences in all groups, with the most significant decrease in group B (p <0.01). In 5 minutes, within the same time scale, there is only a significant difference between groups A and B, again emphasizing the sharpest reduction in pain in the group receiving Arnica D30.

**Conclusions:** The study shows the possibilities of homeopathic remedies (Arnica) to use as a non-pharmacological method for the porpoise of procedural pain control in neonates.

**Key words**: newborn, procedural pain, homeopathy

### P-0047 | POSTER | FETAL THERAPY

DIRECT INTRAMUSCULAR FETAL OR MATERNAL ANTENATAL CORTICOSTEROID THERAPY: SHORT-TIME EFFECTS ON FETAL UMBILICAL, CEREBRAL AND AORTIC VELOCITIES AND PERINATAL OUTCOMES IN HIGH RISK PREGNANCIES: A COMPARATIVE STUDY

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#### Abstract:

**OBJECTIVE:** To compare the effects of antenatal administration of corticosteroids used in two different regimens, on fetal umbilical RiAU, cerebral RiCM and aortic RiAoand perinatal outcomes in high risk pregnancies.

**METHODS:** We evaluated the effects of single direct intramuscular (i.m.) fetal dose of dexamethasone (4 mg/kg), or four doses of 6 mg dexamethasone given to the mother 12 hours apart on the parameters of fetal umbilical RiAU, RiCM,RiAo, 0-4 hours before and after antenatal corticosteroidtherapy (ACST), as well as perinatal outcomes (respiratory distress (RDS) and intracranial hemorrhage ICH). We evaluated two groups of 41 fetuses in the 32nd gestation week at risk of fetal hypoxia at the Department of Gynecology/Obstetrics, Clinical Center of Serbia from 2013 to 2016.

**RESULTS:** In fetal ACST group, we found significantly different changes in fetal cerebral circulation before (RiCM 0-f) and after therapy (RiCM1-f), p = 0.000 (0.026 - 0.024), 95% confidence interval (CI), as well as in the maternal ACST group, p = 0.000; (0.016 - 0.051), 95% CI. Similarly, in fetal ACST group, we found significantly different changes in fetal aortic circulation before (RiCM 0-f) and after therapy (RiCM1-f), p = 0.000 (0.02 - 0.04), 95% confidence interval (CI), as well as in the maternal ACST group, p = 0.000; (0.02 - 0.04), 95% CI. Finally, RiCM is significant predictor of neonatal ICH in fetal ACST group , but it is not for maternal ACST group (p = 0.021 vs p = 0.943)

**CONCLUSIONS:** Fetal and maternal ACST can result in changes to fetal cerebral and aortic circulation. But, only fetal ACST determinates neonatal intracranial hemorrhage.

**KEY WORDS:** antenatal corticosteroid therapy, fetus,umbilical circulation, cerebral circulation, perinatal outcomes

# P-0048 | POSTER | FETAL THERAPY

### PRENATAL DIAGNOSIS OF CONGENITAL CHYLOTHORAX: A CASE REPORT

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#### Abstract:

Congenital chylothorax (CC) is the most prevalent form of fetal pleural effusion (about 65%) and occurs in 1:15.000 pregnancies. The diagnosis is supported by an elevated lymphocyte count (> 80%) and elevated triglyceride levels (> 110 mg/dL) in pleural effusion. It causes serious respiratory, immunological and nutritional concerns and has a significant mortality rate (up to 50%). The causes are either congenital lymphatic malformations (may be syndromatic) or idiopathic forms. Fetal intervention is reserved for high risk cases and includes repeated thoracentesis, thoracoamniotic shunting, maternal blood injection into the fetal pleural cavity, and pleurodesis. Post-natal management may include thoracic drainage, respiratory support, infection control, octreotide infusion and dietary adjustment. We report a case of a severe bilateral pleural effusion diagnosed by prenatal ultrasound and subsequently confirmed to be a CC.

A 33-year old pregnant, Gesta 0, Para 0, referred to our tertiary center at 31st week because a fetal bilateral pleural effusion was detected. There was no significant maternal medical history, no other ultrasound findings, fetal echocardiogram and karyotype were normal. At 32nd week the fetus had a severe bilateral pleural effusion so a right thoracentesis was proceeded. Pleural fluid analysis showed predominant lymphocytes (95%), suggesting a CC. No microorganisms were found in the culture. Other causes of fetal hydrops were excluded. At 33rd week she has gone into labor. Bilateral effusion was again severe. Because the fetus was in breech presentation an emergent C-section was decided, preceded by a left fetal thoracentesis (right lung was technically inaccessible). A male baby was born with no dysmorphic features, weighing 1925g with Apgar score of 5/9/9 (1st/5th/10th minutes). Because of moderate respiratory distress noninvasive positive pressure ventilation was started soon after delivery. X-ray revealed a severe right pleural effusion and a left pneumothorax leading to immediate bilateral thoracic drainage performed in the first hours. At day 3 enteral feeding with a medium-chaintriglyceride-enriched formula was introduced. Because the right pleural effusion reformed, a second thoracentesis was performed at day 13. After this procedure the newborn presented a good clinical evolution, with almost complete reabsorption of the remaining effusion. The admission was otherwise uneventful, with discharge at day 32. At two months old there was a complete resolution of the fluid collection, no respiratory symptoms and a good weight evolution.

Although congenital chylothorax is rare, it should be considered when a fetal pleural effusion is observed prenatally. Due to the fact that it is a life-threatening condition, prompt recognition and prenatal intervention leads to a better outcome. Conservative therapy with pleural drainage or repeated thoracentesis and dietary modification constitutes a management option that should be tried before an invasive approach.

# P-0049 | POSTER | GESTATIONAL DIABETES

# SOCIODEMOGRAPHIC AND OTHER RISK FACTORS ASSOCIATED WITH GESTATIONAL DIABETES MELLITUS

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#### Abstract:

**Background:** Gestational diabetes mellitus is any degree of glucose intolerance with onset or first recognition during pregnancy. There is a significant maternal and fetal risk in GDM pregnancies: hypertension, premature delivery, polyhydramnion, birth traumatism, sudden fetal death, neonatal hypoglycemia and respiratory distress.

**Aim:** aim of the study was to determine the incidence of GDM diagnosed with 75 g oral glucose tolerance test in pregnant women between 24 and 28 th gestational week. Also to evaluate the risk factors associated with GDM.

**Material and methods:** In 100 pregnat women with singleton pregnancies screening for GDM with 75g OGTT was performed. Sociodemografic characteristics, standard questionnaire about personal, obstetric and family background were collected. Influence of age, body mass index, parity, ethnic background, education and macrosomia in previous pregnancy to incidence of GDM was evaluated.

**Results:** in 15% of pregnant women GDM was diagnosed. GDM was more frequent in obese women, age>25 years, women with elementary education, multiparous and women with macrosomia in previous pregnancy. Statistically significant for positive OGTT was age >35 years and history for previous macosomia. Whereas high education statistically significantly reduces the risk for positive OGTT.

**Conclusion:** High prevalence for GDM and pregnancy related complications justifies the screening for GDM in general population. OGTT is a single step procedure which is simple, economic and easy to perform metod that can be used as a screening qnd diagnosis of GDM. Sociodemographic and personal characteristics like age, macrosomia in previous pregnancy and level of education should be considered when GDM pregnancies are evaluated.

**Keywords:** GDM, OGTT, sociodemographic, personal characteristics

# P-0050 | POSTER | GESTATIONAL DIABETES

# ULTRASOUND AT 35-37 WEEKS IN PREGNANT WOMEN WITH GESTATIONAL DIABETES - ROUTINELY?

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### Abstract:

Introduction Gestational diabetes is frequently associated with abnormal fetal growth (fetal growth restriction or macrosomia). Currently, an ultrasound between 35-37 weeks of gestation is recommended in order to screen for abnormal fetal growth. Our aim is to characterize gestational diabetes patients and study maternal and gestational risk factors associated with abnormal fetal growth in this group. Methods A retrospective study of all single pregnancies with gestational diabetes monitored at São João Hospital Center between 2014 and 2016 was conducted. Exclusion criteria included previous maternal diagnosis of type 1 or 2 diabetes mellitus, pregnancies not dated by the first trimester ultrasound, fetus with structural malformations or chromosomal abnormalities, early fetal grow restriction (before 32 weeks) and absence of two ultrasound evaluations in the third trimester.

Maternal characteristics and perinatal outcomes were compared according to abnormal fetal growth. Multivariable logistic regression analyses was performed to predict perinatal outcomes. Results A total of 439 single pregnancies with gestational diabetes were reviewed. Maternal age median was 34 years (IQR 30-37) and 58% (n=256) were older than 35 years old. 51% (n=225) were nulliparous and 31% (n=131) were obese. 37% (n=162) were treated with metformin and 58% (n=254) received insulin. Birth weight mean was 3146 gr (SD=459). Logistic regression analyses revealed maternal age above 35 years was an independent predictor of macrosomia and fetal growth restriction (odds ratio [OR]=2.08, 95% confidence interval [CI]=1.156 - 3.753, p=0.015). These results were adjusted for hypertensive disease, weight gain and body mass index and none of these covariates were significantly related to abnormal fetal growth. Conclusion In this study maternal age above 35 years was a predictor of macrosomia and fetal growth restriction, in pregnancies with gestational diabetes. In these subgroup with maternal age above 35 years the ultrasound re-evaluation of fetal weight may be more reasonable.

### P-0051 | POSTER | GESTATIONAL DIABETES

# EVALUATION OF VARIABLES RELATED TO LARGE NEWBORNS FOR GESTATIONAL AGE IN PACIENTS WITH MELLITUS DIABETES AND THEIR OBSTETRIC OUTCOMES

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#### Abstract:

**Objective:** identify the inconstants related to large newborns for gestational age in patients with gestational mellitus diabetes and their obstetric outcomes.

**Methodology:** a retrospective cohort study was carried out from January 2013 to April 2016 in a public maternity hospital. Two groups were divided: pregnant women who generated large children for gestational age and suitable children for gestational age. Clinical and laboratory maternal characteristics and predictors and perinatal outcomes were evaluated. The multinominal logistic regression model was used to calculate the odds ratio, with a confidence interval of 95%. RESULTS: 950 women were diagnosed with gestational mellitus diabetes, one group (n = 162) generated large newborns for gestational age, and another group (n = 723) of suitable gestational age infants. Newborns considered small for gestational age (n = 65) were excluded. Clinical and laboratory predictors: gestational age of diagnosis, body mass index and weight gain, average fasting glycemia and post-prandial did not present differences. The glycated hemoglobin showed significance in the crude analysis (OR = 2.57, 95% CI 1.05-6.30), but not sustained in the adjusted (OR = 2.18, 95% CI, 0.80-5.90). The perinatal outcomes: apgar and admission to an intensive care unit showed no differences. Large newborns for gestational age were significant for the cesarean section, with gross values (OR = 1.73,IC 95% 1.21-2.4) and adjusted values (OR = 1.71, IC95% 1.20-2.43).

**Conclusion:** factors that in isolation are related to the birth of large newborns for gestational age were not found. In perinatal outcomes, large newborns for gestational age present a greater chance of cesarean delivery.

**Key words:** pregnancy, glycemic index, newborn.

#### P-0052 | POSTER | GESTATIONAL DIABETES

### PH ALTERATIONS IN NEWBORNS OF DIABETIC MOTHERS

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Obstetrics y Ginecology

#### Abstract:

**Introduction:** Diabetes is the most common metabolic disorder in pregnant women. It is associated with a higher incidence of: birth defects in newborns, fetal intrauterine growth restriction, preterm births, macrosomia and fetal intrauterine death. During pregnancy, the correct metabolic control of diabetic patients plays a very important role in reducing perinatal morbidity. The aim of the present study was to identify alterations in pH at birth in newborns of diabetic mothers, since this is a known risk factor for neonatal hypoglycemia.

**Material and methods:** We conducted a retrospective cohort study involving a total of 1090 patients whose delivery took place at the Virgen de las Nieves University Hospital in Granada between 2013 and 2015. The study groups were: non-diabetic patients (ND)(539), diabetic patients (D) (552), gestational diabetes (GD) (541), diet-controlled gestational diabetes (DGD) (401), insulincontrolled gestational diabetes (IGD) (140) and pregestational diabetes (PD) (12). Study variables: maternal age (MA), gestational age at birth (GAB), Apgar score at 1 minute (A1), and at 5 minutes (A5), newborn weight (NW), arterial pH (AP) and venous pH (VP) of umbilical cord. The comparisons of means by t-student for independent samples, were as follows: Dvs.ND, GDvs.ND, DGDvs.ND, DGDvs.ND, PDvs.ND, PDvs.

**RESULTS:** The mean arterial pH for each group was: - ND 7,24(±0,78), D 7,24(±0,081), GD 7,24(±0,081), DGD 7,24(±0,07), IGD 7,24(±0,08), PG 7,24(±0,10). The mean venous pH for each group was: - ND 7,29(±0,42), D 7,22(±0,79), GD 7,22(±0,79), DGD 7,28(±0,49), IGD 7,06(±1,29), PG7,28(±0,08). There were no significant differences in the variables compared between DG and PD. There were also no significant differences regarding arterial pH in any comparison. Statistically significant differences were found in the following comparisons:- D. vs. ND: MA  $33,59(\pm5,4)vs.30,9(\pm6,18)$ , GAB  $270(\pm21)vs.277(\pm10)$ , A1  $8,7(\pm0,83)vs.8,53(\pm1,15)$ , A5  $9,01(\pm0,91)vs.9,1(\pm0,59)$ , NW  $3167(\pm635)vs.3265(\pm477)$ .- GDvs.ND: MA  $33,6(\pm5,4)vs.30,9(\pm6,18)$ , GAB  $270(\pm21)vs.277(\pm10)$ , A1  $8,5(\pm1,11)vs.8,7(\pm0,83)$ , A5  $9,03(\pm0,85)vs.9,1(\pm0,59)$ , NW  $3169(\pm634)vs.3265(\pm477)$ .- DGDvs.ND: MA  $33,7(\pm5,5)vs.30,9(\pm6,18)$ , GAB  $272(\pm19)vs.277(\pm10)$ , A5  $9,06(\pm0,88)vs.9,1(\pm0,59)$ , NW  $3117(\pm609)vs.3265(\pm477)$ .- IGDvs.ND: MA  $33,28(\pm5,1)vs.30,9(\pm6,18)$ , GAB  $264(\pm25)vs.277(\pm10)$ , A1  $8,4(\pm1,21),vs.8,7(\pm0,83)$ , A5  $8,9(\pm0,74)vs.9,1(\pm0,59)$ , VP  $7,06(\pm1,29)vs.7,29(\pm0,42)$ .- DGDvs.IGD: GAB  $272(\pm19)vs.264(\pm25)$ , NW  $3117(\pm609)vs.3317(\pm683)$ , VP  $7,28(\pm0,49)vs.7,06(\pm1,29)$ .- PD vs. ND: GAB  $26(\pm12)vs.277(\pm10)$ .

**CONCLUSIONS:** A statistically significant difference in MA was observed when comparing D versus ND, which may be due to the fact that this metabolic complication is more frequent at an older age. There are statistical differences found regarding A1, A5, PA and PV, that have no clinical significance because they are subtle. Differences in GAB and NW are probably due not only to the higher incidence of prematurity recorded in the literature, but also to that in patients with insulin therapy induction of labor is performed at 38 weeks of gestation (266 days). There is no higher incidence of macrosomia in children of diabetic patients, so it could be deduced that metabolic control during gestation is generally adequate. In addition, the absence of differences in arterial pH shows that there is no higher incidence of intrapartum hypoxemia or fetal distress in relation to the presence of diabetes.

# P-0053 | POSTER | HEMODYNAMIC MONITORING OF THE SICK NEONATE

# THE EFFECT OF PERINATAL HYPOXIA ON LACTATE CONCENTRATIONS OF FULL TERM NEWBORNS

<u>Miljana Jovandarić,</u> Svetlana Milenković, Petar Ivanovski, Miomir Milenković Clinic for Gynecology and Obstetrics, Department of Neonatology, Clinical Center of Serbia

#### Abstract:

The Effect of Perinatal Hypoxia on Lactate Concentrations of Full Term Newborns Miljana Z. Jovandaric1, Svetlana J Milenkovic 1, Petar I. Ivanovski 2, Miomir Milenkovic 3 [1] Clinic for Gynecology and Obstetrics, Department of Neonatology, Clinical Center of Serbia, Belgrade [2] Department of Hematology, University Children's Hospital, School of Medicine, University of Belgrade, Serbia [3] Primary Health Center dr Simo Milosevic, Belgrade Abstract Introduction: Perinatal asphyxia, neonatal asphyxia or birth asphyxia is the medical condition resulting from deprivation of oxygen to a newborn infant that lasts long enough during the birth process to cause physical harm, usually to the brain. Hypoxic damage can occur to most of the infant's organs (heart, lungs, liver, gut, kidneys), but brain damage is of most concern and perhaps the least likely to quickly or completely heal. The initial metabolic response to oxygen deficiency in tissues is the activation of anaerobic glycolysis in tissues. This process marks fast consumption of otherwise limited reserves of glucose in a newborn child. Due to the metabolic block in the tissues, metabolic acidosis with an increase in lactate concentration develops.

**Objectives:** The influence of perinatal hypoxia on lactate concentrations in termine neonates on oxygen therapy in the first and second hours after birth. Materials and Methods: This study includes 100 newborns divided into two groups, 50 newborns that needed the use of oxygen genetic therapy after birth and 50 healthy newborns. In both groups of neonates, the following were determined: gestational age (GA), lactates from arterialized capillary blood, in the first and second hour after birth.

**Results:** The median gestational age in newborns from the group with oxygen therapy was  $38.98\pm1.13$  GA (w), while in the control group the median gestational age was  $39.24\pm1.51$  GA (w). The mean concentration of lactate in the newborns on oxygen therapy in the first hour is  $8.83\pm2.99$  mmol / l; the mean concentration of healthy newborn lactate in the first hour is  $2.41\pm0.66$  mmol / l. The mean concentration of lactate in the newborn on oxygen therapy in the second hour is  $4.24\pm2.68$  mmol / l, for healthy newborn  $1.61\pm0.48$  mmol / l. Lactates were significantly different between the groups in the first and second hours after birth p <0.001.

**Conclusion:** Perinatal asphyxia , or birth asphyxia , result from in inadequate intake of oxygen by the baby during the birth process-before, during or just after birth. Descreased oxygen intake can result in chemical changes in the baby's body that include hypoxemia, or levels of oxygen in the blood, and acidosis, in which too much acid builds up in the blood. Perinatal hypoxia affects the concentration of lactates in the first and second hours after birth. Lactate concentration can be an indication of the degree of ischemia in a newborn with perinatal hypoxia

**Keywords:** perinatal hypoxia, lactates, newborns

# P-0054 | POSTER | HYPERTENSION IN PREGNANCY

# CHORIONIC VILLUS SAMPLING AND PREECLAMPSIA & ECLAMPSIA: COINCIDENCE OR NOT?

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#### Abstract:

**Objectives:** To determine whether a relationship exists between chorionic villus sampling (CVS) and preeclampsia (PE) and eclampsia (E).

**Methods:** This retrospective study was carried out in a tertiary center between January 2012 and January 2017. Exclusion criteria were family history of PE and E, chronic hypertension, thyroid disease, diabetes mellitus (DM) or gestational DM, multiple pregnancy, multigravidity, aspirin usage, hydrops fetalis, inherited thrombophilias, antiphospholipid antibody syndrome, and suspected confined placental mosaicism. Inclusion criteria were women who underwent first trimester screening (FTS), who had complete medical records, and being primigravida. The development of PE and E was compared among three groups as follows: 1- CVS + group: women who had CVS (n=228), 2- CVS – group: women who had not have CVS (n=156), 3- Control group: maternal and gestational age matched women who had negative FTS and no invasive prenatal diagnostic procedure (n=300). First-trimester screening was performed between 11+0 and 13+6 weeks of gestation, according to the guideline established by Fetal Medicine Foundation.

The indications for CVS procedure were presence of positive FTS and/or abnormal ultrasound finding. Main outcome measures were mild PE, severe PE and E.

**Results:** The maternal characteristics, delivery outcomes, and prevalence of PE and E are shown in Table 1. The maternal and gestational age, body mass index, and weight gain were similar between the groups. The percentage of severe PE and E were significantly higher in CVS + and CVS – group than in control group (p < 0.05). The percentage of PE and E were not significantly different between CVS + group and CVS – group (p > 0.05).

**Conclusions:** The results suggest that CVS itself does not seem to increase the risk of PE and E in primigravida women. Spontaneous rather than iatrogenic increase of trophoblastic load in maternal blood may contribute to development of preeclampsia and eclampsia.

**Key words:** Chorionic villus sampling, eclampsia, preeclampsia, pregnancy

# P-0055 | POSTER | HYPERTENSION IN PREGNANCY

# PREGNANCY AFTER KIDNEY TRANSPLANTATION

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# Abstract:

Pregnancy After Kidney Transplantation The kidney transplantation is considered to be the best therapy for terminal kidney disease, nowadays. Numerous studies have shown that pregnancy may be successful and may result in a delivery of a healthy baby after the kidney transplantation. Pregnant women who are the recipients of a kidney transplant have increased chances of developing hypertension, preeclampsia, as well as going into premature labour and frequently giving birth to newborns of low birth weight. We present a case of a successful pregnancy and delivery in a 32-year-old kidney transplant recipient who conceived spontaneously four years posttransplantation. The kidney transplantation has been done due to the chronic hypertension and the consequential kidney atrophy. During the pregnancy, the patient underwent antihypertension and immunosupressive drugs therapy. She was also being monitored by the gynaecologist and the nephrologist. The pregnancy was terminated in the 40th week by an urgent Caesarean section due to the fetal bradycardia. The patient gave birth to the healthy baby girl.

**Key words**: Pregnancy, Kidney transplantation, Chronic kidney disease, Immunosupresive drug.

# P-0056 | POSTER | HYPERTENSION IN PREGNANCY

### DECREASED VISUAL ACUITY AT PREGNANCY TERM: A CASE REPORT

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#### Abstract:

Changes in visual acuity during pregnancy are common and may be physiological or secondary to ocular or systemic diseases arising in pregnancy. The amount of differential diagnosis makes etiologic investigation a challenge to obstetrics care units and their professionals. 1 A 41-yearold pregnant woman with chronic hypertension under treatment with methyldopa 250mg bid, 4 gesta, with history of 3 previous caesarean sections (CST) and 2 severe pre-eclampsia episodes. At 36 weeks of gestation, in outpatient consultation, the patient referred blurred vision of the right eye for 3 weeks, with no associated headache or abdominal pain. Blood pressure was normal and no proteinuria was detected. Ophthalmologic examination revealed a severe decrease in visual acuity, with no signs of ocular disease. Optic idiopathic neuropathy was suspected and she was admitted for therapy with corticosteroids. Magnetic resonance imaging revealed an oval space occupying lesion within the sphenoidal plan with extension to the intracranial opening of the optic nerve, causing posterior optic chiasma deviation. These findings suggested the diagnosis of meningioma. Before the possibility of a neurosurgery intervention, an elective CST was performed at 38weeks. After delivery, complete resolution of visual symptoms occurred in 3 days. Patient refused neurosurgical intervention maintaining outpatient clinical surveillance. Meningioma during pregnancy can exacerbate. Aggravation of symptoms may be due to fluid retention, vascular engorgement and increased edema or the presence of hormone receptors on tumor cells, leading to its growth. The management strategy should be tailored to the individual case. 2 Urgent surgical intervention is reserved for the management of malignancy, acute hydrocephalus, and increased intracranial pressure. Corticosteroids may be very helpful in treating severe edema perioperatively or peripartum. When evaluating ocular symptoms in pregnancy it's important to recall that it may not be related to pregnancy-relatedconditions and other differential diagnosis should be excluded

# P-0057 | POSTER | HYPOXIC ISCHEMIC ENCEPHALOPATHY

# THE RELATIONSHIP BETWEEN ARTERIAL PH, BD AND HYPOXIC-ISCHEMIC ENCEPHALOPATHY

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#### Abstract:

**Objectives:** Hypoxic-ischemic encephalopathy (HIE) is a major cause of neurologic disabilities in term neonates. The blood gas criteria that define perinatal asphyxia causing brain injury are uncertain. However, the pH and base deficit (BD) from the umbilical cord or first blood gas is useful for determining which newborns have asphyxia requiring further evaluation for the development of HIE. The aim of our study was to evaluate the reletionship between metabolic acidosis (pH, BD) and HIE.

**Methods:**This prospective study included 37 term newborns, born in Clinic of Obstretics and Gynecology, Clinical Center of Serbia, Belgrade, with Apgar score 5-min 5 and below. They required assisted ventilation initiated at birth and continued for at least 10 minutes. Also included criteria was pH $\leq$  7.20 and/or BD  $\geq$ 12 mEq/L from a radialis blood sample in the first hour of age. Criteria for HIE was determinated by Sarnat clasification and we included only infants with HIE 2/3 (moderate/severe).

**Results:** Of the 37 newborns, 32,43% (n=12) had pH< 7.0 and 66% (n=8) of these had HIE 2/3; 67,56% (n=25) had pH  $\geq$ 7.0 and 20% (n=5) of these had HIE 2/3. Difference between these two groups is statistically significant (p< 0.01). There was 75,67% (n=28) newborns that had BD  $\leq$  22 mEq/L and 21,42% (n=6) of these had HIE 2/3; there was 24,32% (n=9) that had BD > 22 mEq/L and 77,77%(n=7) of these had HIE 2/3. Difference between these two groups is statistically significant (p< 0.01).

**Conclusions:** In our study neonatal acidaemia (pH below 7.0 and /or BD above 22mEq/L) is associated with adverse neurological outcomes in newborns with AS5-min 5 or bellow, who requried reanimation at delivery.

# P-0058 | POSTER | INFECTIONS IN PREGNANCY

# CHLAMYDIA TRACHOMATIS GENITAL INFECTION ASSOCIATED WITH SPONTANEOUS ABORTIONS-OUR EXPERIENCE FROM CLINICAL PRACTICE

<u>Aneta Sima,</u> Slagjana Simeonova-Krstevska, Jadranka Georgievska, Drage Dabeski, Arta Bina *UGAK Skopje* 

#### **Abstract**

**Introduction:** Sexually transmitted diseases are common finding among women in adolescence and in reproductive period. Their prevalence is rising all over the world. In the first place we should mention HIV/ AIDS as the most serious and life threatening disease, and also others most common microorganisms responsible for STD-s( bacteria ,viruses, parasites): gonorrhea, human papilloma virus infection, genital herpes, chlamydia, ureaplasma, mycoplasma, syphilis etc. STDs are an important global health priority because they can cause long-term health problems in women, arising from them: pelvic inflammatory disease, tubal or ectopic pregnancy, cervical cancer, congenital infections in infants born to infected mothers, preterm delivery, spontaneous abortions

**Aim:** The aim of this study was to evaluate the frequency of Chlamydia trachomatis infection in pregnant women between 12-22 weeks of pregnancy and to prove if there is association between this infection and spontaneous abortions.

**Methods:** This case-control study was performed at University Clinic of Ob/Gyn, Skopje, department of Urgent gynecology and also at obstetrics ambulance, in a period of one year, from januari 2015 until januari 2016. Totally 230 patients were included, divided in two groups. The first group consisted of 115 patients, whose pregnancy terminated with spontaneous abortion, and the second- control group of 115 patients with normal pregnancy. Simultaneously examinations were performed: endocervical swabs taken( for DNA to be extracted) and PCR blood test( for detection Chlamydia using specific primers). The results were compared using statistic tests- t test, Chi-square test and p< 0,05 was considered significant.

**Results:** Our study showed that the total prevalence of Chlamydia trachomatis infection was 42 ( 18,32 %) isolated from endocervical swabs, and 55(19,58%) in PCR blood tests. The number of patients with positive results in the case group was 29( 24 %) and 16( 11,8 %) in control group. Association between Chlamydia infection and spontaneous abortions was statistically significant ( 0R=2,23, CI=95%)

**Conclusion:** The results from the study confirmed the strong association between chlemydia trachomatis infection with spontaneous abortions. This is a serious indicator that something more has to be done. Regular check ups, screening and treatment of pregnant women may prevent unwanted pregnancy outcome: preterm delivery, increased neonatal morbidity and mortality, spontaneous abortions. The main goal of public health is disease prevention. We need further researches for new vaccines, topical microbicides and also education for sexual behavior.

**Key words:** Chlamydia trachomatis, infection, spontaneous abortions

# P-0059 | POSTER | INFECTIONS IN PREGNANCY

# INFECTION IN PREGNANCY WITH EPILEPSIA

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#### Abstract:

Epilepsy is the most common neurological disorder in women of reproductive age. The inflammatory process in the CNS leads to the induction of convulsive syndrome, which negatively affects the condition of the newborn. The aim of the study was to improve perinatal and obstetric outcomes in patients with epilepsy.

**Materials and methods:** from 2014 to 2016, 129 pregnant women with epilepsy were under observation. PCR was used to diagnose viral infections, antibodies to neurospecific proteins S-100, GFAP, MBP and NGF were studied, and interferon status was determined. Group I - 59 pregnant women, who had a reduced level of neuroantibodies, negative PCR diagnosis and normal interferon status. Group II included 42 pregnant women with positive PCR diagnostics, a high level of antibodies to the NBP, a decrease in IFN  $\alpha$  serum <4 U / ml. In pregnant women of the II group interferon alpha-2b was used. A second examination was performed before delivery.

**Results:** at the moment of delivery in Group II the level of neurosensitization decreased by 2.5 times, the virus DNA was not detected. Spontaneous delivery in group I - 83%, in group II 76.2%, in comparison group 82.2%. With an Apgar score 8 -9 85% of children were born. Hypoxia in labor occurred in 15% in the I group, 11.9% - in II. Signs of intrauterine invection in children from mothers of group I were revealed in 16.7%, from mothers of group II - in 4.8%. In the study of NSP in children of the I group, significant hyposensitization was found, in group II - within the limits of reference values.

**Conclusions:** the inclusion of interferon alfa-2b in the complex of ongoing treatment prevented the development of severe forms of IUI and perinatal CNS damage in newborns.

# P-0060 | POSTER | INFECTIONS IN PREGNANCY

#### RISK FACTORS OF GBS COLONIZATION

<u>Puertas Prieto A.</u>, Rios Lorenzo M, Zurimendi Gorrochategui I, Gónzalez Escudero AR, Pinto Ibañez A, Alkourdi Martinez A, Puertas Prieto A. Hospital Materno Infantil Granada

#### Abstract:

**Objetivos:** Some of the obstetric factors that have been associated with an increased probability of GSB infection are prenatal vaginal and/or rectal colonization, prolongued ruptures of membranes, premature deliveries and intrapartum fever. Traditionally, the maternal GBS colonization has been considered the strongest risk factor for disease development, therefore we have analysed some factors that could underlie maternal colonization by GSB.

**Methods:** A retrospective cohort study was performed including 45.784 deliveries that happened between 2003 and 2014 in the Maternity Hospital in Granada, Spain. Chi2 tests were carried out in order to assess whether there is a connection among GBS colonization and the following variables: diabetes (gestational and previous diabetes), obesity, maternal age > 35 years old, maternal age < 18 years old, non-controlled pregnancy, prolonged pregnancy (>42 weeks) and HIV.

**Results:** within this population 9314 pregnant women had a positive result in GBS colonization (20,34% of the total), the average age was  $30\pm12$  years old and the average gestational age 274±30 days. There were 245 smoking women, 2150 were diabetic, 677 non-controlled pregnancies, 627 were < 18 years old, 7263 > 35 years old, 597 prolonged pregnancies (>294 days), 931 were obese (BMI >30) and 61 were HIV+. Furthermore, statistically significant differences could be found for maternal diabetes (p=0,04) OR 1,14 (CI 95% 1,004-1,237) and for multiparity (p=0,001) OR 0,892 (CI 95% 0,833-0,956). There were no statistically significant differences with the other variables.

It should be remarked the difference observed in the frequency of GBS colonization in some of the groups: in obese women (22,6% against 20,5% in non obese ones), non smoking women (20,5% against 18% in smokers), age < 18 years (23,1% against 20,5%), non prolonged pregnancies (20,5% against 17,4% prolonged pregnancies) and in HIV+ women (23% against 20,5%). However, the differences were not statistically significant. The frequencies in the other studied variables (maternal age > 35 years old and non-controlled pregnancies) showed no different

**Conclusions:** It can be concluded that diabetes is a risk factor for GBS colonization among the studied variables. Due to the differences observed in the frequency of colonization in some of the analysed groups and although the results were not statistically significant, more studies would be needed to determine if there is a real association among them.

# P-0061 | POSTER | INFECTIONS IN PREGNANCY

### DRUG-INDUCED THROMBOPENIA IN A TERM PREGNANT

<u>Puertas Prieto A.</u>, Rios Lorenzo M, Gonzalez Escudero AR, Bonilla Garcia L, Pinto Ibañez A, Ruiz Duran S, Puertas Prieto A.

Hospital Materno Infantil Granada

Abstract:

**Introduction:** Thrombopenia is defined as a platelet count less than 150,000 platelets/mm3 in, at least, two determinations. The most common causes of thrombopenia during pregnancy are gestational thrombopenia, HELLP syndrome, autoimmune diseases and infections. In addition, there are many drugs that can cause thrombopenia, including mesalazine, which is frequently used in ulcerative colitis.

Case report: In this context, a case of a 36-year-old pregnant woman with ulcerative colitis under treatment during pregnancy is reported. The patient, with a gestational age of 38 weeks, was referred from the hematology service to end gestation due to a low platelet count, anemia, elevation of liver enzymes and suspicion of hemolysis, with a high probability of HELLP syndrome. The pregnant woman presented hematomas in all the extension of lower extremities that were increasing. There was no other clinic added. Due to the progressive decrease in platelet count (26,000 platelets/mm3), it was decided to perform a cesarean section with previous platelet transfusion. After surgery, liver enzymes normalized, but she suffered a new decrease of platelets. It was decided to administer pulses of dexamethasone 40mg/24 h and immunoglobulins 1gr/kg, with a low treatment response. Despite the treatment there was a persistence of thrombocytopenia without hemolysis data, thus a bone marrow aspirate and bone marrow biopsy were performed and dysplastic features were observed. Subsequently the patient remained asymptomatic, and the platelet count was increasing until its normalization after three months without treatment.

Excluding the rest of possible diagnoses, it was concluded that the most probable cause of thrombopenia was the use of mesalazine, that the patient was taking from the beginning of gestation and until the thrombopenia appeared. Mesalazine is widely used to treat acute episodes of inflammatory bowel disease and for maintenance treatment, and the frequency reported of thrombopenia with this drug is <1/10000. Mesalazine may also affect other blood series (<1/10000) causing aplastic anemia, agranulocytosis, leukopenia, neutropenia and methemoglobinemia. Small amounts of 5-ASA are detectable in the maternal and cord plasma during treatment with mesalazine, and blood disorders (leucopenia, thrombocytopenia, anemia) have been reported in newborns of mothers under treatment with this drug. However none of them have been described in the newborn due to this use. Some data show an increased rate of preterm birth, stillbirth, and low birth weight with the use of mesalazina; however, these adverse pregnancy outcomes are also associated with active inflammatory bowel disease. In this case the newborn developed without problems, with a weight according to gestational age, requiring only basic neonatal care.

**Conclusion:** Drugs, although unlikely, are one of the causes of thrombopenia. Therefore, in order to perform a good differential diagnosis we must include a careful anamnesis emphasizing the possible treatments of the patient. The use of oral mesalazine during pregnancy is safe; the reported cases of associated complications should be further investigated due to its association with the basic pathology: the inflammatory bowel disease"

# P-0062 | POSTER | INFECTIONS IN PREGNANCY

# DO WE REALLY NEED TO WORRY ABOUT LISTERIA IN PREGNANT WOMEN?

<u>Bucuri Carmen Elena,</u> Ciortea Razvan, Măluțan Andrei Mihai, Costin Berceanu, Rada Maria Patricia, Mihu Dan UMF Iuliu Hatieganu

#### Abstract:

Listeria monocytogenes is a ubiquitous Gram-positive bacillus widespread in nature. About one in seven cases of listeriosis occurs in pregnant women and, although listeriosis is rare, it is the third leading cause of death from food-borne infections.

Maternal listeriosis is a diagnostic challenge and intrauterine infection can lead to severe complications such as preterm labor, amnionitis, spontaneous abortion, stillbirth and neonatal sepsis. Reliable laboratory testing for early diagnosis is lacking.

Serological antibody tests and bacteriological stool tests are not helpful since Listeria-specific antibodies and stool cultures yielding the organism can be found in healthy pregnant women. During pregnancy, infections are more likely to occur in the third trimester (66%) than the first trimester (3%). However, as gestational age increases, fetal and neonatal adverse effects are less common. Neonatal infection is divided into early and late neonatal listeriosis. The early one occurs in the first four days of life, frequently in premature infants, who acquire the microorganism transplacentally and in 50% of cases develop sepsis, with or without meningeal involvement. It is the most frequent way of seeing in obstetrics.

Listeria monocytogenes is sensitive to several antimicrobials. However, it exhibits natural resistance to third generation cephalosporins, fosfomycin and quinolones. Clinical experience shows that the drugs of choice are amoxicillin or ampicillin, in high doses.

In order to get better results of the Listeriosis etiological diagnostic it is very important to associate maternal data and clinical and laboratory findings of the newborn with the pathologic placental findings. And yes, we need to worry about this disease because although Listeriosis is a rare affection that could cause mild maternal illness, can be devastating to the fetus, that why we should emphasize monitoring for symptoms consistent with listeriosis and set a low threshold for medical evaluation of those who are symptomatic.

# P-0063 | POSTER | INFECTIONS IN PREGNANCY

# APLASIA CUTIS CONGENITA

<u>Mirjana Lukić</u>, Radoje Simić General hospital "Laza K. Lazarević" Šabac/Neonatology

#### Abstract:

Aplasia cutis congenita (ACC) represents a localized deficiency of the skin and its adnexa, visible at the birth. ACC can be caused by various factors: intrauterine infections, drugs, infraction of the placenta or the death of one out of the two fetuses in the uterus. Furthermore, it can be a consequence of a pressure caused by strangulation of the umbilical cord around the extremities, and, in some cases, it is inherited. Aplasia is classified into 9 groups (Frieden classification) according to localization and associated anomalies.

We describe a male newborn with ACC on the left foot without any other anomalies that is classified into group FriedenVII and monitoring of the treatment till the age of 7. Newborn was delivered vaginally in controlled pregnancy with Appgar score: 8/9, dimensions: 3800g/58cm/37cm. In 19th week of pregnancy, mother had gynecological intervention, removal of the condyloma from the cervix, followed by Amoxiklav treatment.

Newborn was eupneic, pink color of the skin, with no pathological findings of the heart and lungs. Nose was slightly deformed, curved to the left side, with passable choanaes. On the inner side of the left ankle in direction towards the thumb, we could observe skin defect of 3x0.7cm with elevated edges and expressed venous drawings. The foot was in adductus. Blood analysis, CRP and skin swab was taken and the lesion was treated with Octenisept. Subsequently, the newborn was transported to Mother and Child Health Care Institute of Serbia "Dr Vukan Čupić" for a consultative examination performed by Prof. Radoje Simić. Suggested treatment was dressing wound with Fibrolan and Octenisept twice a day with physical rehabilitation.

Here we show the follow-up of this case in periods of 25.10.2010 till 28.6.2017.

**Keywords:** aplasia, treatment

### P-0064 | POSTER | INFECTIONS IN PREGNANCY

# THE ROLE OF DISORDERS OF VAGINAL MICROCENOSIS IN THE FORMATION OF RECURRENT RETROCHORIAL HEMATOMAS IN THE FIRST HALF OF PREGNANCY

# Irina Ignatko

Sechenov First Moscow state autonomous medical university

**Abstract:** The presence of vaginal bleeding from the genital tract of different intensity in the first half of gestation is seen in 18-29% of pregnant women and in a large percentage of observations associated with the syndrome fetal loss (up to 76%). The retrochorial or intermembranous hematomas are the most common causes of vaginal bleeding before 22 weeks of gestation. The retrochorial hematoma, diagnosed with ultrasound study described in 4-22 % of all pregnancies and its frequency of occurrence is higher in the group of pregnant women with ART (22.4%).

The aim of the study was to determine the importance and nature of disorders of vaginal microcenosis in pregnant women with recurrent retrochorial hematomas in the first half of pregnancy. We examined 27 women in the gestation 10-22 weeks with a bloody discharge from the genital tract and re-identified with ultrasound hematomas located in different parts of the ovum, both single and multiple. Conducted a study of biocenosis of urogenital tract (Femoflor (17+KM))

by

PCR.

The 4 (of 14.81%) women had the pregnancy as the result of IVF. The average number of first-time mothers was 25.9% (7 women). Multigravida was 20 (74.1%), and 8 (40,0%) - aged primiparas and 12 (60,0%) - who already had children. Of 12 multiparous women in 5 (41.7%) previous pregnancy proceeded against the background of threats of termination, and in 7 (58.3%) were detected retrochorial hematoma in the first trimester. Features of obstetric history in multiparous women were characterized by the presence of induced abortions (one to three) at 40.0% of cases, presence of spontaneous abortion before 14 weeks – 20.0% of pregnant women, very early preterm birth (multiparous) – 8.33%. In the study of somatic status of women revealed the presence of extragenital pathology in 33.3% (9 patients). Gynecologic history was present in 13 (48.1%) of women in both groups. In 11 (40.7%) patients had received treatment at the presence of genital infections. We found that normal levels of ecological community was not observed in any patient.

The different variants of bacterial vaginosis were dominated (70.4%), infection by Enterobacteriacea (18.5%), Mycoplasma genitalium (11.1%). Options mixed infections were observed in 16 of the 27 pregnant women (59.3 per cent). Additionally we detected viral infection. Different serotypes of HPV were detected in 7 of 27 women (25.9%).

The data obtained by us confirm the significance of microcenosis disorders in the vagina in the genesis of retrochoric and retroplacental, as well as intercostal hematomas.

# P-0065 | POSTER | INFECTIONS IN PREGNANCY

#### INFECTION IN PREGNANCY WITH EPILEPSIA

<u>TSIVTSIVADZE E</u>, Petrukhin VA, Novikova SV, Ryazantseva EV, Vlasov PN, Bocharova II *Moscow regional research institute of obstetrics and gynecology/obstetrics clinic* 

Epilepsy is the most common neurological disorder in women of reproductive age. The inflammatory process in the CNS leads to the induction of convulsive syndrome, which negatively affects the condition of the newborn.

The **aim** of the study was to improve perinatal and obstetric outcomes in patients with epilepsy.

**Materials and methods**: from 2014 to 2016, 129 pregnant women with epilepsy were under observation. PCR was used to diagnose viral infections, antibodies to neurospecific proteins S-100, GFAP, MBP and NGF were studied, and interferon status was determined. Group I - 59 pregnant women, who had a reduced level of neuroantibodies, negative PCR diagnosis and normal interferon status. Group II included 42 pregnant women with positive PCR diagnostics, a high level of antibodies to the NBP, a decrease in IFN  $\alpha$  serum <4 U / ml. In pregnant women of the II group interferon alpha-2b was used. A second examination was performed before delivery.

**Results:** at the moment of delivery in Group II the level of neurosensitization decreased by 2.5 times, the virus DNA was not detected. Spontaneous delivery in group I - 83%, in group II 76.2%, in comparison group 82.2%. With an Apgar score 8 -9 85% of children were born. Hypoxia in labor occurred in 15% in the I group, 11.9% - in II. Signs of intrauterine invection in children from mothers of group I were revealed in 16.7%, from mothers of group II - in 4.8%. In the study of NSP in children of the I group, significant hyposensitization was found, in group II - within the limits of reference values.

**Conclusions:** the inclusion of interferon alfa-2b in the complex of ongoing treatment prevented the development of severe forms of IUI and perinatal CNS damage in newborns.

**Keywords:** epilepsy, neurospecific proteins, infection

# P-0066 | POSTER | INTERVENTIONAL ULTRASOUND IN NEONATOLOGY A CASE REPORT OFA TERM BABY WITH UNILATERAL PERINATAL TESTICULAR TORSION

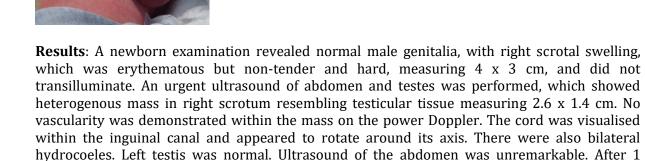
<u>Ariana Spungina,</u> Michail Sergentanis, Sanjay Raina *Paediatric Dept., The Princess Alexandra Hospital* 

unit with interim parental surveillance of the scrotum.

#### Abstract:

**Objective:** 12 % of all testicular torsions during infancy are perinatal testicular torsions (intrauterine and postnatal in the first month of life). The prenatal diagnosis of testicular torsion is difficult and the diagnosis is often retrospective. There are two types of testicular torsion – extravaginal and intravaginal. Extravaginal torsion occurs in foetuses and neonates, whereby the testis, epididymis, and tunica vaginalis twist on the spermatic cord, leading to infarction of the testis.

**Method**: A term baby was born by uncomplicated normal vaginal delivery at a district general hospital, weighing 4240 grams. At birth, right scrotal swelling was noticed by his mother. The pregnancy was uneventful and antenatal scans were normal.



**Conclusion**:Reported literature shows prenatal history is very important in perinatal testicular torsion. Pre-eclampsia, gestational diabetes, twin gestation, large size, and prenatal hydronephrosis have all been linked to perinatal testicular torsion. Clinical findings and power Doppler sonography play an important part in deciding on further management of testicular torsion. In this baby's case a large size was a risk factor and clinical examination and power Doppler identified perinatal testicular torsion.

month of age the baby had a right-sided orchiectomy and contralateral orchidopexy at a tertiary

# P-0067 | POSTER | MANAGEMENT OF ACUTE PRETERM LABOR

# **CORTICOSTEROIDS: TIME TO DELIVERY**

Moghtadaei Parisa, Nikpour Fatemeh *Laleh Hospital* 

Abstract:

**Objective:** To find the best time for delivery after corticosteroids injection in preterm birth Method & Materials: Preterm births were enrolled through two hospitals during 4 years. Morbidities (IVH, CPL, NEC, and Retinopathy) were obtained and focused 1100 singleton births at 26-34 weeks gestations. They divided the timing of antenatal corticosteroids in three groups. First injection at less than 24 hours before (60%), first injection within 1-7 days before birth (22%), and first injection more than 7 days before birth (18%)

**Results:** Of total infants, 55% were girls and mean gestational age was 30 wks+4 days, and mean birth weight was 1515 grams. Administration of corticosteroids was associated decreased in mortality reaching to 52% risk reduction after 14 -32 hours interval. Significant brain injuries reduction was seen after 72 hours .at least 0.5-2 hours before delivery was shown to decline mortality to 25%.

**Conclusion:** Antenatal corticosteroids may be effective even if given only hours before delivery

**Key words:** Corticosteroids, Preterm birth, time to delivery

# P-0068 | POSTER | MANAGEMENT OF ACUTE PRETERM LABOR

### CHARACTERISTICS OF CARDIOTOCOGRAPHIC TRACING IN PRETERM FETUSES.

<u>Andrea Pinto Ibáñez</u>, Pinto Ibáñez A, Copado Salido S, Pérez Sabio J, Alkourdi Martínez A, Puerta Sanabria JM, Puertas Prieto A.

Obstetrics y Ginecology

Abstract:

**Introduction:** The characteristics of the cardiotocographic tracing reflect the functioning of the autonomic and somatic nervous systems as well as the fetus's response to hypoxia and mechanical stimuli during labor. Although existing guidelines for intrapartum monitoring of term fetuses, there are very few evidence-based recommendations for preterm fetal monitoring.

**Material and methods:** Descriptive observational study in which cardiotocographic traces (CTG) of preterm fetuses were collected from mothers attending the Obstetrical-Gynecological Emergency Service for reasons with unlikely repercussion on the CTG(odontalgia, headache, gastrointestinal disturbances, accidental falls, vulvovaginitis,etc.). Two groups were made by gestational age. Then, the first 20 minutes of each CTG were analyzed and compared between the

Results: 118 CTG traces of preterm fetuses between week 22 and week 36 of gestation were obtained. 66(55.9%) CTG were from fetuses less than 30 weeks and 52(44.1%) from fetuses of 30 weeks or more. The mean baseline of fetal heart rate(FHR) was 141±8bpm. Only in 0.8% (1) the baseline was below 110bpm, in all other cases(99.2%) the FHR in normal range(110-160bpm). The mean baseline of the fetuses younger than 30 weeks was 144±6bpm, fetuses older than 30 weeks is 138±8bpm. That difference is statistically significant(P=0.001). The 16.1% (19) had a minimum variability (less than or equal to 5 bpm), while in 82.2% (97) the variability was moderate (5-25bpm). In fetuses younger than 30 weeks, 11 had decreased variability (57.9%), compared to 8 (42.1%) cases in older than 30 weeks fetuses. The variability was moderate in 54 cases (55.7%) and in 43 cases (44.3%), respectively. These differences were not statistically significant. 75.4% (95) had transient accelerations of the FHR. 53.4% (63) were reactive FHR patterns (2 or more accelerations in 20 minutes). Of these, 30 (47.6%) belonged to RCTG of fetuses less than 30 weeks and 33 (52.4%) to fetuses of more than 30 weeks, and there were no significant differences between the two groups. 5.6% (7) presented at some point of the CTG trace a typical variable deceleration. 4.8%(6) presented a isolated and transient decreases in the FHR without achieving deceleration criteria and 3.2%(4) presented these alterations periodically. The difference was significant between the two groups, both in the presence of decelerations (85,7% in less than 30 weeks vs.14,3% in 30 weeks or more) and for the transient decreases of FHR(90%vs.10%, respectively).

**Conclusions:** Due to the lack of research and evidence regarding electronic monitoring of the preterm fetus, the definition of a normal CTG trace for this gestational age is a challenge. The characteristics of the tracing depend on the gestational age as they represent the degree of maturity and development of the nervous and cardiovascular system. We find important differences between the preterm and term fetuses; although the sample size of our study does not allow to identify them clearly. Understanding the physiological functioning of the systems involved is the key to the correct interpretation of the cardiotocographic trace.

#### P-0069 | POSTER | MANAGEMENT OF ACUTE PRETERM LABOR

### MANAGEMENT OF PERIPARTUM CARDIOMYOPATHY

<u>Cristina Aur,</u> Diana Mocuta *County University Hospital Oradea, Obstetrics-Gynecology* 

#### Abstract:

**Objectives:** Peripartum cardiomyopathy is diagnosed in the last month of pregnancy until 5 months after birth when signs of cardiac insufficiency appear: altered systolic left ventricle function, FEVS < 45%, left ventricle dilation > 27 mm/m2, with no preexistent cardiomyopathy or other identifiable causes. Recently was described an early form of PPCM at pregnant women, before 36 weeks of pregnancy, when the evolution is similar. The pregnancy- related cardiac dysfunction was mentioned from 1849, and in 1971 was described the peripartum cardiomyopathy like cardiac insufficiency at young patients. The etiology, still unknown, is probably plurifactorial: inflammatory, autoimmune, the action of a peptide from prolactin metabolism. The genetic factor could be also involved, but ESC doesn't recommend genetic tests. Risk factors are: age > 30 years, obesity, preexistent high blood pressure, nuliparity, multiple pregnancies. Regarding the evolution of the disease, 40% of patients will be asymptomatic after 6 weeks of treatment, in 30% of cases the signs of cardiac insufficiency still exist and in 30% of cases appear death in the first 4 years.

PPCM is complex pathologic status, being a rare cause of cardiac insufficiency. We put the diagnosis in our patients on clinical signs of cardiac insufficiency and the systolic dysfunctions in ultrasound.

**Material and method:** In all of our patients, the echocardiography showed systolic dysfunction of left ventricle, the dilation of left ventricle, but a normal thickness of ventricle walls, secondary mitral insufficiency, left ventricle ejection fraction  $\leq$  45%. The MRI could exclude myocarditis. Treating this condition means conventional therapy of the cardiac insufficiency with systolic dysfunction (but no IAEC, antialdosterone medication in pregnant women), concordant with ESC guides . Important is to associate inhibiting agents of PRL secretion. Unconventional treatment could be cardiac resynchronization therapy, or cardiac transplant. Anticoagulant therapy is recommended for prevention of thromboembolism.

**Results:** We experienced in our clinic 5 cases in the last 18 months. The onset of the symptoms was before labor in 4 cases and appeared antepartum with dyspnea, fatigability/ asthenia. Only one pacient was diagnosed in the first week after vaginal birth at term. After the diagnosis was established and cardiac specific treatment associated with antiprolactine was administered, the evolution was favorable in all cases.

**Conclusion:** PPCM is a vascular disease of unknown etiology, included in the list of rare diseases. The diagnosis is by excluding other pathologies and the criteria must be respected to avoid sub/supraevaluation of this cardiac condition.

# P-0070 | POSTER | MOLECULAR GENETICS IN PERINATAL MEDICINE

# ASSESSMENT OF THE INDIVIDUAL FOLIC ACID DOSES REQUIREMENT FOR PATIENTS WITH REPRODUCTIVE DISORDERS

# Zoia Rossokha, Gorovenko N

State institution "Reference-centre for molecular diagnostic of public health ministry of Ukraine" State institution of Genetic and Regenerative Medicine National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine.

# Abstract:

**Objectives:** Folic acid consumption beginning the preconception period is an important component of the favorable course of pregnancy and the birth of a healthy neonate. Folate deficiency of food and vitamins intake, smoking and folate related genes polymorphism cause an increased risk of hyperhomocysteinemia developing. Hyperhomocysteinemia associate with the reproductive losses risk. But recent studies focused that excessive folate serum level also has an adverse effect on pregnancy and neonatal outcome. The aim of the study was to assess the folate metabolism in women with reproductive disorders depending on folate related genes polymorphism, environmental factors and folic acid administration.

Materials: 170 women with reproductive disorders (primary infertility/early pregnancy loss) were examined. We investigated folate related genes polymorphism: MTHFR (C677T, A1298C), MTRR (A66G), MTR1 (A2756G), RFC (G80A) and folate metabolism markers (plasma homocystein level, plasma folate level). Patients past histories, daily folic acid administration (400-800  $\mu$ g, 1 mg, 2-5 mg as monovitamin or multivitamin complexes and without administration) during the beginning of the study were detailed. Gene-gene and gene-factor interactions were analyzed using multifactor dimensionality reduction program (MDR\_version 3.0.2).

Results: 35 (20,58%) patients had mild hyperhomocysteinemia (more 12  $\mu$ mol /L). 7 (20%) of these patients did not take folic acid and 28 (80%) did take an average of 1 mg or 2-5 mg folic acid daily as monovitamin. Compared different interactions between subgroups with elevated and normal homocysteine level we found three locus significant model MTHFR(C677T)/MTRR (A66G)/smoking (predictive value 67%). Possible folate deficiency (less 6 ng/ml) and folate excess (more 6 ng/ml) was found among women (16 (9,41%) and 25 (14,70%), respectively). 8 (50%) possible folate deficiency women did not take folic acid and 8 (50%) did take an average 1 mg or 2-5 mg folic acid daily as monovitamin. Significant model of folate deficiency risk was also three locus but included MTHFR(C677T)/body mass index/hormonal therapy (predictive value 72%).

All women with elevated folate level did take 1 mg or 2-5 mg folic acid daily as monovitamin. Significant risk model (predictive value 69,75%) was MTR1(A2756G)/RFC(G80A)/MTHFR(C677T). Two women with folate deficiency had mild hyperhomocysteinemia, but three women with folate excess had also hyperhomocysteinemia. They were offered liquid chromatography to detect amino acid defects. Incidentally MTHFR (C677T, A1298C), MTRR (A66G), MTR1 (A2756G), RFC (G80A) genotype frequencies in all comparison subgroups did not differ.

**Conclusion:** Further interactions studies are needed to select individual administration of folic acid in order to prevent hypervitaminosis and hypovitaminosis for optimal maintenance of folate metabolism and to overcome reproductive disorders.

# P-0071 | POSTER | MONOCHORIONICS

# TRAP SEQUENCE

<u>Manuel GUERRA</u>, Belen Banderas, Claudia Carson, Paz Leiva, Nereida Morales, Patricio Vasquez Maria Teresa Haye, Jorge Gutierrez San Jose Hospital, Santiago

**Background.** The TRAP sequence is a very rare fetal pathology observed in 1% of monochorionic twin pregnancies, and 1 in every 35,000 deliveries. There are several theories about its etiology, being the vascular the most accepted. The principle of blood perfusion in this type of gestation is associated with the presence of placental vascular anastomosis and retrograde arterial perfusion that allow the survival of a fetus with alterations, at the expense of a normal one. The acardic twin has a mortality of 100% and the normal twin has a mortality of up to 60% according to the published series. They are classified according to the degree of development of the acardiac twin: acardio – acéphalus; acardio –acornus; acardio – amorphous; myelacephalus and acardio – aneceps; the latter being the most differentiated.

**Case report.** Patient information. A healthy 22-year-old G1P0 woman at 15 weeks' gestation starts her prenatal control.

**Initial diagnostic.** At 17 weeks' of monochorionic monoamniotic pregnancy. Ultrasound examination highlights: twin 1 with preserved fetal anatomy and umbilical vein impressing with increased caliber; twin 2, with preserved limbs, head, thorax and abdomen, and the presence of a nutrient vessel that irrigates upper body, without identifiable cardiac structure, and reverse flow in the umbilical artery.

**Intervention.** At 17+6 weeks' gestation a fetoscopy is performed: photocoagulation and umbilical cord section of twin 2. Twin 1 is progressing favorably. It is kept with a periodical follow-up.

**Results.** At 35 weeks' gestation, after premature rupture of the membranes, a healthy twin was born through vaginal delivery (weight 2502 grs, APGAR score 6-8).

**Conclusion.** The TRAP sequence is an uncommon, lethal pathology for the recipient twin and, potentially, for the donor twin. Intrauterine therapy increase the survival rate of the donor twin up to 80-90%.

#### P-0072 | POSTER | NEONATAL NUTRITION

#### ENTERAL FEEDING OF LOW-BIRTH-WEIGHT NEWBORNS

<u>Zivko Jovicic,</u> Slobodan Spasojevic, Vesna Stojanovic, Nenad Barisic, Tanja Radovanovic, Aleksandra Doronjski *Medical Faculty, University of Novi Sad* 

Abstract:

**Objectives:** To determine the effect of feeding with donor breast milk in comparison to formula on growth and development in low-birth-weight (LBW) newborns.

**Methods:** Retrospective study of medical records of 92 LBW newborns treated in Intensive Care Unit and fed with donor breast milk, Institute of Child and Youth Healthcare of Vojvodina, Novi Sad from January 1st 2016 till December 31st 2016. Data were compared with historical group of 78 LBW newborns treated in the same facility and fed with formula from January 1st 2010 till December 31st 2010.

**Results:** Enteral feeding was introduced highly significantly sooner and weight-gaining of donor breast milk-fed newborns was highly significantly faster compared to formula-fed newborns (p<0.001). Incidence of necrotizing enterocolitis was 57.62% lower in donor breast milk-fed group. Number of days spent on mechanical ventilation decreased while number of days spent on noninvasive ventilation increased in the donor milk-fed group (p<0.001).

**Conclusions:** Feeding low birth weight infants with donor breast milk resulted in better rate of early neonatal growth, lower incidence of necrotizing enterocolitis and less invasive respiratory support modalities compared to those ones predominately fed with formula. Therefore promoting of breastfeeding, as well as advocating for donor breast milk banking as the better choice in the absence of mother's own milk. More in-depth research is needed to identify the long-term neurodevelopmental outcomes of donor breast milk-fed newborns.

#### P-0073 | POSTER | NEONATAL NUTRITION

#### TRANSIENT CHOLESTASIS IN NEONATES WITH PERINATAL ASPHYXIA

<u>Yayoi Murano,</u> Mitsuyoshi Suzuki, Kei Minowa, Hiromichi Shoji, Ken Hisata, Masato Kantake, Kaoru Obinata, Toshiaki Shimizu

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#### Abstract:

**Objective:** The aim of this study was both to assess the incidence and severity of hepatic involvement in newborns with neonatal asphyxia and to identify factors associated with cholestatic liver disease in this patient group.

**Methods:** Subjects comprised full-term infants (gestational age <sup>3</sup> 36 weeks) with neonatal asphyxia who required treatment and hospitalization at our institution between 2008 and 2013 (ICD-10 codes: P210, P211, and P219). Cholestasis was defined as direct bilirubin levels <sup>3</sup>1.5 mg/dL. This study was a retrospective study based on medical records.

**Results:** Cholestasis occurred in 10 of 67 cases (14.9%). Cholestasis was resolved merely by observation in eight of the 10 cases (80%). In these eight cases, the initial Apgar score ranged from 1 to 7 points; age of onset ranged from two to eight days; mechanical ventilation was required in six cases; and intrauterine growth retardation occurred in three cases. Advanced cholestatic liver disease occurred in two of the 10 cases (20%), and these patients required treatment with ursodeoxycholic acid and supplementation of fat-soluble vitamins. In these two cases, the initial Apgar scores were 2 and 6 points, and the onset times were 4 and 6 days after birth. Both patients received mechanical ventilation and experienced central nervous system, renal, and gastrointestinal complications. These patients also had persistent jaundice, and differentiation from extrahepatic etiologies, including biliary atresia and metabolic disease, was required.

**Conclusion:** Cholestasis occurred in about 15% of full-term infants who experienced neonatal asphyxia. Among the infants with post-asphyxial cholestasis, advanced cholestatic liver disease occurred in 3% of patients. These patients required careful observation to differentiate their diagnosis from other liver diseases because post-asphyxial cholestasis is evident several days after birth and becomes persistent. Transient neonatal cholestasis was associated with several contributing factors related to the severity of neonatal distress.

#### P-0074 | POSTER | NEONATAL SEPSIS

## CLINICAL COURSE AND OUTCOMES OF SEPSIS IN NEONATES ACCORDING TO THEIR GESTATIONAL AGE

<u>Biljana Otasevic</u>, Natasa Music-Trninic, Svetlana Milenkovic, Miljana Jovandaric, Milica Rankovic-Janevski, Tatjana Nikolic

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#### Abstract:

**Objectives:** The objectives of this study were to evaluate risk factors, course and outcomes of sepsis in neonates based on their gestational age.

**Methods:** The study included 115 consecutive neonates who met the following criteria: 1) gestational age between 24. and 39. weeks, 2) blood culture proven sepsis, 3) absence of other significant co-morbidities, and 4) written consent of the parents. The patients were divided in two groups according to the gestational age. Group I included neonates with gestational age between 24. and 32. weeks (74 neonates), and group II included neonates with gestational age between 33. and 39. weeks (41 neonates). Empirical antiobiotic treatment was initially started and adjusted according to the antibiogram results.

**Results:** There were no differences between the groups in terms of maternal risk factors for sepsis. Regarding the neonatal characteristics, group I had lower birth-weight ( $1286\pm325$  vs  $2071\pm495$  grams, p<0.001), and Apgar score after 1 ( $5.04\pm2.05$  vs  $6.77\pm1.86$ , p<0.001) and 5 minutes ( $5.85\pm1.99$  vs  $7.32\pm1.86$ , p<0.001). There was no difference between the groups with respect to the incidence of early (39/74 (52.7%) vs 18/41 (43.9%), p=0.37) and late sepsis (35/74 (47.3%) vs 23/41(56.1%), p=0.44). The most frequent causative bacteria in both groups was Serratia species (55/74 (74.3%)vs 33/41(80.5%), p=0.77), followed by Acinetobacter in group I, and Klebsiella in group II. Again, antibiotic treatment was similar between the groups, with meropenem being used most frequently (68/74 (91.8%) vs 38/41 (92.7%), p=0.97). Duration of hospitalization was longer in Group I when compared to Group II ( $83.3\pm35$  vs  $42.6\pm13.4$  days, p<0.001). There was a trend towards increase mortality in Group I vs Group II (11/74 (14.9%) vs 2/41 (4.9%), p=0.10).

**Conclusions:** Neonates with lower gestational age tend to have prolonged hospitalization following sepsis. There is a trend toward increased mortality in the same group. Other characteristics are similar between neonates of different gestational age.

#### P-0075 | POSTER | NEONATAL SEPSIS

#### CONGENITAL ACUTE LEUKEMIA-CASE REPORT

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#### Abstract:

Congenital leukemia is an extremely rare disorder in the newborn. The most common type is acute myeloid leukemia. Neonates may present with a broad variety of atypical symptoms (low-grade fever, diarrhea, easy bruising, failure to gain weight), simulating septicemia and congenital infections.

We report a term male infant, born by cesarean section at 38 weeks gestation to a primigravida woman with pregnancy complicated by epilepsia and anemia. APGAR scores were 9 and 7 at first and fifth minutes, respectively. The amniotic fluid was meconial. He was hypotonic, cyanotic and transferred to the NICU (Neonatal intensive care unit). He required supplemental oxygen for 22 hours. Initially antibiotics were administered for empiric treatment of early-onset sepsis. Laboratory parameters revealed total leukocyte count 67 000/mm3, C-reactive protein (CRP) levels of 0,0 mg/l. At day two of life, he did not require supplemental oxygen, physical examination was normal. For next three days C-reactive protein increased to 30 mg/l, and broad-spectrum antibiotic was given. At two weeks of life we noticed swelling of left antebrachium and left lover leg. All bacterial cultures were negative. Serological tests for congenital viral infections were negative. On the fourteenth day of life white blood cell count is still very high 83 400 mm/3 and the baby was transferred to the Institute for Health Protection of Mother and Child of Serbia "Dr Vukan Cupic", for further diagnostic examinations. Congenital acute megakaryocityc leukemia was diagnosed. With this case report we would like to show that "suspected sepsis" is one of the most common diagnosis made in the NICU. The signs of sepsis are nonspecific and many noninfectious conditions mimic those of neonatal sepsis. Clinicians must keep a high index of suspicion of acute leukemia even in the neonatal period.

#### P-0076 | POSTER | NEONATAL SEPSIS

#### EARLY-ONSET NEONATAL SEPSIS: IS IT MY MOTHER'S FAULT?

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#### Abstract:

**Objectives:** The main aim in this study was to determinate the incidence, leading maternal risk factors and causative pathogens of early-onset neonatal sepsis (EONS).

**Methods:** Research encompasses the data obtained from the archives of the Neonatal Unit during the period of two year. Diagnosis of EONS was made according to positive culture (blood, urine or cerebrospinal fluid), clinical and laboratory findings consistent with sepsis within first 72 hours.

**Results:** During the period of two years there were born 8332 infants. Maternal risk factors for developement of EONS were recorded in 957(11.49 %) infants. There were 795(83.07 %) infantswith one obstetric risk factor and 145(15.15 %)of them with two risk factors. The most common maternal risk factors for developement of EONS were:colpitis gravis(65.2 %), premature rupture of membranes(16.82 %), urinary tract infection in pregnancy(9.51 %), intrapartum fever(5.43 %) and chorioamnionitis(3.03 %). Out of 957 infants with maternal risk factors, 301(31,45 %) developed EONS during the first 72 hours. According to positive culture, clinical and laboratory findings infants were divided in two groups, 225 with probable and 76 with proven EONS. In both groups male infants (57.14 %) were more prevalent than female (42.86 %). The most common pathogen present in positive culture was Coagulasenegative Staphylococcus (CoNS)(n=23) followed by E.coli(n=10), E. faecalis(n=8), P. aeruginosa(n=8), Streptococcus sp.(n=7).

**Conclusion:** The highest possibility of EONS is among infants with maternal risk factors such as colpitis gravis and premature rupture of membranes. This study indicates that vertical transmisson plays important role in cases of EONS. Advancements in essential perinatal care, particularly treatment of maternal infections or colonization may prevent a significant proportion of EONS.

#### P-0077 | POSTER | NEONATAL SEPSIS

## POINTING ON GROUP B STREPTOCOCCUS AS A PERSISTING CAUSE OF NEONATAL SEPSIS: SINGLE CENTRE 10 YEARS EXPERIENCE

<u>Jelena Kojovic</u>, Zorica Vasiljevic, Jelena Martic, Katarina Pejic, Gordana Markovic-Sovtic, Ksenija Dragutinovic, Zorica Rakonjac, Borisav Jankovic

Mother and Child Health Care Institute of Serbia/Department of Neonatology

#### Abstract:

**Objectives:** Sepsis is an imporant cause of morbidity and mortality among newborn infants. Universal screening at 35-37 weeks gestation for maternal Group B Streptococcus (GBS) disease and the use of intrapartum antibiotic prophylaxis has resulted in substantial reduction of early onset GBS disease among newborn. Despite progress in prevention of perinatal GBS disease since the 1990s, GBS remains the leading cause of early-onset and important cause of late-onset neonatal sepsis. Early onset sepsis (within first week of life) is usually related to the vaginal colonization and is a consequence of vertical transmission during delivery. Late onset disease (LOD) can be acquired from the mother, environmental or nosocomial sources after birth (horizontal transmission). In some infants the source of infection is unclear. There are no clear guidelines for the prevention of late GBS disease. Severe LOD includes sepsis, meningitis, seizures, brain lesions at discharge, need for catecholamine support or mechanical ventilation. However, intrapartum antibiotic prophylaxis did not affect the prevalence of late onset sepsis but is associated with both delayed and milder presentation of disease. The aim of the prospective-retrospective study is to present the clinical course and treatment of newborns with early and late neonatal sepsis (NS) and meningitis caused by GBS treated in the Mother and Child Health Care Institute of Serbia in a ten-year period and to point out the importance of universal GBS screening, comprehensive intrapartum prophylaxis, rapid detection and adequate treatment of neonatal sepsis.

**Methods:** Patients data in this prospective-retrospective study were obtained from medical documentation.

**Results:** In the period from January 2007. to December 2016, 42 newborns with sepsis caused by GBS were treated at the Institute. Thity patients (71%) had early NS and 12 (29%) were treated for late sepsis. In 17 patients (41%) sepsis was proven by the isolation of GBS from the hemoculture and 25 (59%) had GBS isolation from other specimens with the presence of clinical signs and laboratory indicators of sepsis. Clinical signs of early sepsis were respiratory distress, altered general condition, seizures, abdominal distention, poor milk tolerance and fever. In patients with late sepsis anxiety, fever, convulsion, apnea, hypertonia, altered general and neurological conditions been reported. Respiratory insufficiency and the need for respiratory support were reported in 10 cases (24%). Meningitis was found in 8 newborns (19%), of which 6 had late sepsis. There were two lethal outcomes (5%).

**Conclusions**: Universal screening and intrapartum antibiotic prophylaxis continue to be the main prevention of GBS disease. Rapid detection of neonatal infection and initiation of appropriate treatment (combination of ampicillin and aminoglycoside antibiotics) is necessary to minimize morbidity and mortality among newborns with GBS sepsis. Detection of early and late NS is certain clinical challenge and includes changes in clinical appearance, recognition of signs of systemic inflammatory response syndrome, pathological laboratory results and presence of maternal risk factors for GBS disease. Continued efforts are needed to sustain and improve on the progress achieved in the prevention of GBS disease.

#### P-0078 | POSTER | NEURODEVELOPMENTAL OUTCOME IN PRETERM INFANTS

## ASSOCIATION BETWEEN RED BLOOD CELL TRANSFUSION AND DEVELOPMENT OF THRESHOLD RETINOPATHY OF PREMATURITY (ROP)

<u>Biljana S Dunjic,</u> Lj. S. Sulovic, N.S. Ristovski, M.R. Stankovic, M.S. Dunjic Department of Neonatology, Obstetric and Gynecology, University Clinic Belgrade

#### Abstract:

**Objective:** Retinopathy of prematurity (ROP) is a serious complication characterised with abnormal vascular development of retina in premature infants. Most premature infants are given multiple red blood cell (RBC) transfusions in the treatment of Anaemia of Prematurity(AOP). ROP represents a disorder that is associated with oxidative stress. RBC transfusion can provide excess iron that facilitates the formation of highly reactive hydroxy radicals (OH) in the superoxide Haber-Weiss reaction and thus increases oxidative stress. Preterm infants are particularly sensitive to this effect of excess iron because of low oxidative defences and low levels of ceruloplasmin and transpherrin which are iron binding protein.

The **aim** of this study was to explore whether a severe form of ROP can be influenced by administration of multiple RBC transfusions.

**Methods:** The three years prospective-retrospective study was conducted on the Department of Neonatology of Ob/Gyn Clinic.Study group consisted of 69 premature infants with severe active ROP level 3 +, "threshold disease", which required oftalmologic treatment. Control group consisted of 69 premature infants who have not had changes in blood vessels of the eye or had milder degrees of ROP (I and II), and in which there was no indication for oftalmologic treatment. Treatment of Anaemia include RBC transfusions which are given to preterm infants based on indications and guidelines (hematocrit/ hemoglobin levels, ventilation and oxygen, gestational and chronological age).

**RESULTS:** 60 (from 69) premature infants required RBC transfusion in study group (E). 47 (from 69) infants required RBC transfusion in control group(C). Chi-Square Test = 11,510: p < 0,001 was statistically significantly high. T-Test: p=0,007, statistically significantly high. In the study group (E) infants got 195 RBC transfusion comparabile 95 in the control group(C).

**Conclusons:** In this study administration of RBC transfusion was statistically significantly high risk factor for development of threshold ROP.

**Keywords:** ROP, RBC transfusion, preterm infants

#### P-0079 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS

#### CURRENT STATUS OF NONINVASIVE PRENATAL TESTING IN TURKEY

#### Ebru Dündar Yenilmez, Abdullah Tuli

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#### Abstract:

The discovery of cell free fetal DNA (cffDNA) in the maternal circulation has driven new opportunities for noninvasive prenatal testing (NIPT). Analysis of cffDNA from maternal plasma by new technologies such as High resolution melting analysis (HRM) offers an alternative potential for NIPT.

The aim of our study was to detect the paternal alleles in cffDNA of pregnant women carrier of beta thalassemia, cystic fibrosis (CF) and congenital adrenal hyperplasia (CAH) using HRM. Fetal RHD genotyping is also studied in RHD(-) women by multiplex real-time PCR.

Maternal plasma samples obtained from 120 beta thalassemia, one CF and one CAH carrier first trimester pregnant women before chorionic villus sampling. For fetal RHD genotyping blood samples collected from 90 RHD(-) pregnant women. The paternal mutations were detected in cffDNA by HRM analysis, using related primers for beta globin, CFTR and CYP21 genes. Fetal RHD examined for exon 5 and 7. The results confirmed by serology tests and sequencing analysis.

Paternally alleles were detected in 54 of 120 for beta thalassemia, one for CF and one for CAH in cffDNA. Detecting paternal beta thalassemia mutations were IVS1-110(G-A), IVSII-848(C-A), CD15(G-A), IVS1-6(T-C), IVSII-1(G-A) and Cd 8(-AA). The paternal CF mutation (R334W) and CAH mutation (V281L) were also detected.

We concluded that HRM analysis is a rapid and useful mutation scanning method in NIPT of beta thalassemias, CF and CAH to detect paternal alleles in cffDNA. Detecting fetal RHD status from cffDNA is useful to management RH incompatibility in early pregnancy.

**Key Words:** Cell free fetal DNA, paternal mutation, beta thalassemia, cystic fibrosis, congenital adrenal hyperplasia

#### P-0080 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS

#### MECONIUM AND COLONIC MOTILITY

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#### Abstract:

Meconium aspiration syndrome is a medical condition affecting newborn infants. The condition occurs when meconium is present in their lungs during or before delivery. Even though many efforts had been done to limit this condition, neonatal morbidity and mortality still in increasing numbers.

The method to detect the possibility of occurrence of this syndrome is still unanswered. The ultrasound imaging shall be the promising tools. The ultrasound for gastrointestinal plays main role to locate the stool in the gastrointestinal system. The area divided into small intestine and large intestine (colon). Solid mass of meconium is starting from colon ascending –tranverse colon – descending part continuing to rectum. All parts of the colon can be identified easily using ultrasound. Rectum is located at the posterior of the urinary bladder. The threat becomes imminent when the stool passage reaches the descending colon and rectum.

We reported four cases during 6 months period from October 2016 to March 2017 on how to avoid this syndrome and just to deliver the baby in the proper time.

The results are promising. All the fetuses are born just in time with pleasant outcome. Without any meconium stained amniotic fluid and respiratory distress found.

Keywords: meconium, ultrasound, colon

#### P-0081 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS

#### **ARHROGRYPOSIS**

<u>Marija Knežević,</u> Crnogorac Snežana, Stamatović Ana , Varajić Mirko *General Hospital Nikšić, Montenegro* 

#### Abstract:

Arthrogryposis is congenital anomaly that includes heterogenic states whose main characteristic is limited moves and multiple contractures in joints. Main cause is reduced intrauterine movement which is a consequence of neural, muscular or disorder of connective tissue, mechanical limit of movement, oligohydramnion or infection, exposure to theratogens or it can be a result of various deseases of a mother. Arthrogryposis is affecting 1 in 3000 live births. In second trimester fetus takes forced position which is usually transversal or even breech presentation with pathological position of extremities which are not moving during the whole examination.

We present you case of: a 29-Year-old female (Gravida 2, Para 0) who conceived thanks to IVF procedure. She already had 2 ultrasound examination which were unsuccessful because of forced position of arms and expressed flexion of wrists. Repeated examination has showed vital foetus, ultrasonographic gestational age 23, with breetch presentation and orderly presented CNS structures, face, vertebra, extremities, stomach, kidneys and bladder, so as fair proportionality indices. Nuchal translucency was 4.5mm. Feet and wrists were in forced position with very rare movement of extremities which is specific for arthrogryposis.

Serial ultrasound examinations are necessary for verification of fetal growth, lung development and the amount of amniotic fluid. Prognosis depends on the type of conjoint anomalies, level of respiratory insufficiency and scoliosis. When diagnosis is made and before achieving of fetal maturity, abortion can be made.

#### P-0082 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS

#### BODY STALK SYNDROME, IMPORANCE OF EARLY DIAGNOSIS

<u>Ana Đukić</u>, Babić Ranka, Crnogorac Snežana, Bogdanović Ana , Šimun Vojislav, Vuković Bojana *Clinical Center of Montenegro, Department of Gynecology and Obstetrics* 

#### Abstract:

Body stalk syndrome is a very rare and severe polymalformative syndrome characterized by a large defect of the ventral abdominal wall with most abdominal organs outside the abdominal cavity located in the amniotic sac and complete absence or very short umbilical cord. It occurs in about 1 per 14 000 births.

There are many theories that attempt to explain the pathogenesis of this syndrome including amniotic disruptions, embryonic dysplasia and vascular disruption in early pregnancy, but the exact etiology and pathogenesis of this rare anomaly are unknown. We present a case of 26-year old patient who was referred into our institution for ultrasound examination at 15 weeks of gestation. The ultrasound examination showed the fetus with positive fetal heart action and immediate noticeable evisceration of the entire abdominal organs. In addition to the dominant ultrasound image of visceral organs that fill the amniotic sac, we noticed very short umbilical cord and expressed scoliosis. The described ultrasound findings were consistent with the body stalk syndrome. The patient decided to end the pregnancy. Macroscopically, fetal appearance corresponded to description of body stalk syndrome.

This anomaly is incompatible with life, therefore early diagnosis and differentiation from other similar anomalies are of crucial importance. Typical signs of the body stalk syndrome can be diagnosed during the first trimester of pregnancy. The goal of this case is to present this rare condition and draw attention to the importance of early detection of ultrasound marker in order to achieve a quick and more efficient treatment of the patient.

#### P-0083 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS

#### THE NEW TECHNOLOGY OF X-RAY STUDIES IN NEONATOLOGY

<u>Olga Alekseeva</u>, A. Yu. Vasil'ev, N. N. Potrakhov, Yu. N. Potrakhov *Central Research Radiology Insitute* 

#### Abstract:

The technology of extracorporeal fertilization has been rapidly developing, there is a trend in the birth of children with low body weight. By the definition of who the newborns are considered viable weighing 500 g or higher.

This newborns are often prone to lung diseases such as atelectasis and inflammatory changes. The basis of instrumental diagnostics of these processes is currently the chest x-ray. None of the standardized radiographic methods in Russian medicine make possible to perform x-ray examinations of premature babies in unspecialized conditions. Currently, these studies are conducted on Russian or foreign x-ray equipment that is not adapted to the tasks and conditions of resuscitation of newborns with pathological changes. Accordingly, medical staff and newborns get additional radiation exposure. At the same time the possibility of creating the new class of special-purpose equipment for neonatology has been appeared. Our research has showed that practically all listed requirements for organizing x-ray diagnostics in non-specialized conditions and, first of all, neonatology, are satisfied by the technique of microfocus radiography. According to experts, the informative value of the x-ray images obtained at home doesn't give away to the x-ray images obtained in the hospital.

#### P-0084 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS

PRENATAL DIAGNOSIS OF FETAL LOWER URINARY TRACT OBSTRUCTION PRESENTING AS AN ABDOMINAL MASS IN A TWIN PREGNANCY USING THREE-DIMENSIONAL ULTRASOUND WITH "FLY THRU" TECHNOLOGY: A CASE REPORT

<u>Leah Socorro Rivera</u>, Nina C. Dimaano M.D., Ditas Decena M.D. Dep. of Obstetrics and Gynecology, University of Santo Tomas Hospital Manila, Philippines

#### Abstract:

We report a case of a twin pregnancy, wherein one twin presented with an abdominal cyst since 12 weeks' gestational age. Upon referral at 21 weeks' gestational age, three-dimensional ultrasound with Fly thru technology was used to aid in the identification of the etiology and nature of the mass. The arrow navigated in a cephalocaudad direction using the autopilot mode. The cystic mass had smooth inner walls. Upon approaching the most inferior portion of the mass, an opening was visualized. Upon navigation, this opening ended in a blind pouch. This was interpreted as a probable obstructed urethral os. Once megacystis was confirmed, serial vesicocentesis and urine biochemistries were used to direct the management. At 27 weeks gestational age, patient underwent preterm delivery secondary to PPROM with cord prolapse. The affected twin did not survive. Gross examination revealed the present of megacystis. The morphologically normal twin stayed at the neonatal ICU for 10 weeks and survived.

**Keywords:** Fetal abdominal mass, fetal megacystis, Three-dimensional Ultrasound with Fly Thru technology

# P-0085 | POSTER | NONINVASIVE PRENATAL DIAGNOSIS PRENATAL ULTRASOUD DIAGNOSIS EXTREME RARE CASE OF ROBERTS SYNDROME (TETRA PHOCOMELIA), PSEUDOTHALIDOMID SYNDROMA EXCEPT CYTOGENETIC (PCS AND HR) AND MOLECULAR (ESCO2)

Kolarski Milenko, Nedić Branko, Stanišić Rajko

Insitutut for child and yuth care Vojvodine, Novi Sad, Serbia, Private Polyclinic and gynecogy ofiice Dr Nedić,Ruma, Serbia, Head of department Novi Sad Pharmacy Galenica.a.d, Belgrade

#### Abstract:

**Introduction:** Roberts syndrome is also know many names likes pseudotholidomid syndrome...It is a genetic disorder caused by the mutation of ESCO2 gene on 8 th chromosome.John Roberts first described the syndrome in 1919, autosomal recessive disorders.Many physical malformations associated with Roberts syndrome are very similar to malformationwhosw mothers took thalidomide douring pregnanty. Pregnanty women N.N, 26 jears old first pregnanty, without heredity presurae and withoutillnes, and bleedingdouring first trimestre pregnanty. She did have takes any medicamnt six mounths before and douring first trimestre pragnenty.

First ultrasound examination have been late in 18 gw! Schowed prenatal growth retardation two weeks and existence many kongenital anomaly foety. Absence legs and handsand kongenuital anomalies hands and feets (sindactilia and polidactilia) with cranifacial malformations, encephalocelae ... . Second ultrasoud examination schowed existence Non ImuneHydrops Fetii and elevated amniotic fluid and prenatal growth retardation 4 weeks .

We recomended prenatal genetics analises citogenetics (kariotiping) and genetic testing (ECPO2,mutations) before abrupt pregnanty and comformed prenatal ultrasoud diagnosedRobert syndrome.

Perents after recomended adviceddecided abrupted pregnatnty exept citogeneticTestinggenetic and Genetic Testing.

**Conclusions:** Prenatal Ultrasounddiagnosed (UZ and MR), dourring first and second trimestre pregnantyare very importante in prevent kongenital malformation foety and exept citogenetics and genetic Testing.

#### P-0086 | POSTER | OBESITY DURING PREGNANCY

## MATERNAL BODY MASS INDEX CHANGE AS A NEW PREDICTOR OPTIMAL GESTATIONAL WEIGHT GAIN IN OVERWEIGHT WOMEN

Zoran Mestrovic, Damir Roje University Hospital Split, Ob/Gyn Department

#### Abstract:

**OBJECTIVES:** Although the question of the optimal weight gain in pregnancy seems like a trivial one, it remains one of the most controversial issues in modern perinatology, as it has been associated with numerous pregnancy-related outcomes. This paper aims to investigate how maternal pre-pregnancy body-mass index relates to the neonate anthropometry.

**METHODS:** The study included 2,906 mothers and their neonates, originating from a larger cohort consisting of 21,400 newborns. Mothers with singleton term pregnancies (37th to 42nd week of gestation), who were overweight before pregnancy (BMI 25- 29.9 kg/m2) were enrolled. Body mass index change was used as a predictor of neonate anthropometry, which was classified as the small (SGA), appropriate (AGA) or large for gestational age (LGA).

**RESULTS:** We detected 199 (6.8%) SGA and 371 (12.8%) of LGA newborns. Weight gains greater than 14 kg were associated with significant increase in the rate of LGA newborns. In contrast, BMI change was a much more sensitive predictor, suggesting that changes of 4-6 kg/m2 were associated with mildly higher rates of LGA newborns, while gains greater than 6 kg/m2 were associated with substantially higher rates of LGA newborns.

**CONCLUSIONS:** Maternal height seems to be an important factor in optimal weight gain definition, suggesting that body mass index change should be preferential measure to pregnancy-related weight gain. Gains of up to 4 kg/m2 seem the most favorable, while those greater than 6 kg/m2 were associated with the highest risk of macrosomic newborns.

#### P-0087 | POSTER | OBESITY DURING PREGNANCY

#### EFFECT OF METFORMIN IN THE LIPID PROFILE OF THE OBESE PREGNANT WOMEN

<u>Carla Beatriz Pimentel Cesar Hoffmann,</u> Guilherme Dienstmann, Aline Brancaleone Rochembach, Gabriela Sirydakis Macedo, Grazielle Dutra da Silva, Willian Barbosa Sales, Iramar Baptistella do Nascimento and Jean Carl Silva *University of Joinville Region* 

#### Abstract:

**Objectives:** The therapeutic arsenal for dyslipidemia during the pregnancy is until restricted. The present research will evaluate if the use of Metformin Hydrochloride will demonstrate benefits in lipid profile variation during the pregnancy of obese women.

Methods: Randomized clinical trial performed in maternity a hospital in the south of Brazil since October 1st, 2014 until February 28, 2017. The obese (BMI ≥30,0) pregnant women was randomized in two groups. The first group (116) received metformin, 500mg twice a day, and the control group (144) did not. Both of groups was followed-up with nutritionist. At first medical appointment, 24-28 weeks, and 32-34 weeks gestation, it was realized laboratory tests of Total Cholesterol (TC), Low Density Lipoprotein (LDL), High Density Lipoprotein (HDL) and Triglycerides (TG). The groups were compared using the Kruskal-Wallis and Mann-Whitney tests when the Kolmogorov-Smirnov normality test was rejected. For quantitative variables, the median and interquartile range were calculated. In all analyses, it was considered significant p<0,05.

**Results:** The lipid profile results were compared in three different moments of pregnancy and no difference was found between the groups. Control group versus metformin: between the first and third trimesters, there was a variation for the CT of 41.5 and 39.0, respectively (p = 0.036). For HDL, 9.3 and 6.3, respectively (p = 0.98). For LDL, 14.2 and 16.5, respectively (p = 0.38). For TG, 56.0 and 71.5, respectively (p = 0.27). In the analysis within groups, there is an increase in the TC, LDL and HDL between the 1st and the 2nd data collecting, but without variation in the 3rd. The TG dosage proved progressive increase in all data gathering in both of groups.

**Conclusion:** There is no significant effect of metformin on the lipid profile in this studied population.

**Keywords:** Gestational obesity; Lipid profile; metformin;

#### P-0088 | POSTER | POSTPARTUM HEMORRHAGE

## THE ROLE OF ULTRASOUND BY CALCULATION PLACENTA ACCRETA INDEX TO PREDICT THE OUTCOME OF PLACENTA ADHESIVA CASES AT GATOT SOEBROTO ARMY HOSPITAL

<u>Tiarma Pardede</u>, Imam Rahmadi, Azen Salim *Gatot Soebroto Central Army Hospital Jakarta* 

#### Abstract:

The increasing incidence of placenta accreta is closely linked to increased deliveries by caesarean section. Antenatal diagnosis of morbidly adherent placenta is important in improving maternal and fetal outcome, therefore necessitating sensitive and specific diagnostic modalities in predicting placenta adhesiva. One such modality is ultrasonography. Proper ultrasonographic examination and the use of Placenta Accreta Index are able to predict up to 96% cases in high risk populations, defined by previous history of caesarean section.

We report two cases of placenta adhesiva with 2x history of Caesarean section in Gatot Soebroto Central Army Hospital, Indonesia, obtained by ultrasound during antenatal care. PAI scoring yielded 96% and 69% prediction in each cases, both of which were proven to be placenta adhesiva through intraoperative and histopathological findings.

PAI scoring is able to provide guideline to the obstetrician in predicting cases of placenta accreta, prepare a better multidisciplinary management, and improve maternal and fetal outcome.

#### P-0089 | POSTER | POSTPARTUM HEMORRHAGE

## THE EFFECT OF PREOPERATIVE URETERIC STENTS PLACEMENT ON OBSTETRICAL HYSTERECTOMY ASSOCIATED MORBIDITY

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Department of Obstetrics and Gynecology, National and Kapodistrian University of Athens

#### Abstract:

**Aim:** To compare the morbidity with and without preoperative ureteric stents placement, in women who underwent obstetrical hysterectomy due to placenta accreta. Design: Retrospective case control study. Setting: A university hospital in Athens, Greece. Population: 14 women with preoperative ureteric stents placement who underwent obstetrical hysterectomy due to placenta accreta and 25 non stented women with placenta accreta who also underwent hysterectomy.

**Methods:** A retrospective registry of all obstetrical hysterectomies performed in "Alexandra" Hospital due to placenta accreta, was conducted from January 2007 until December 2011. All cases of OH that preceded by ureteral stent placement were identified (14/39) and compared to those without stents (25/39). Main outcome measures: Obstetric hysterectomies were compared in terms of urological injuries, blood transfusion, fresh frozen plasma (FFP) and crystalloids transfusion, hospital stay, and operative time.

**Results:** Women stented preoperatively, required fewer blood units, FFP and crystalloids, compared to controls (p=0.001, p<0.001, p=0.001 respectively). Mean operative time and maternal hospital stay were also less in the stents group (p<0.001, p<0.001). Total complications were also less in this group, although not statistically significant.

**Conclusion:** Bilateral ureteric stent prior to a scheduled caesarean section due to placenta accreta seems to reduce maternal morbidity in cases that will undergo obstetrical hysterectomy.

#### P-0090 | POSTER | POSTPARTUM HEMORRHAGE

## EXPERIENCE OF CARBETOCIN FOR PREVENTION OF POSTPARTUM HEMORRHAGE UNDER PERINATAL CENTERS

<u>Irina Ignatko</u>, Samoilova Yulia A., Afanasieva Natalia V. *Sechenov First Moscow state autonomous medical university* 

#### Abstract:

The purpose of the study is to compare the effectiveness and safety of uterotonic drugs oxytocin and carbetocin for the prevention of postpartum haemorrhage during spontaneous labor. To prevent postpartum haemorrhage during spontaneous labor in high-risk patients 64 women was introduced carbetocin. In the comparison group were included 62 patients whose with the same purpose was used oxytocin.

The indication for the use uterotonic means was the presence of at least one risk factor for bleeding (burdened obstetric history, high parity, anomalies of labor activity, large fruit, mild preeclampsia, low location of the placenta, postpartum hemorrhage in anamnesis). The gestational age was over 37 weeks of pregnancy. Among the surveyed women a large proportion were who already had children - 84 (66.7 percent). Second birth was -65 of 84 (77.4%), others 12 (14,3%), 4 or more -7 (8,33%). In 102 (80,95%) women were artificially abortions, and 13 (12,75%) had 3 or more abortions.

The study of extragenital pathology revealed a somatic burdened history in 78 (61.9%) of the pregnant. When assessing blood loss was found that the proportion of patients with physiologic blood loss (less than 0.5% by weight) was greater in the first group (Pabal) - 92.18% (59), and in the second group (oxytocin) - 83.87% (52). The average amount of blood loss in these patients was of  $385.6\pm56.5\%$  and  $399.6\pm60.7$  respectively. In 4 (6.25%) postpartum women who received Pabal and 7 (11,29%) – oxytocin average blood loss amounted to more than 0.5% of body weight (but not more than 1000 ml), the average  $720.7\pm100.7$  and  $746.8\pm125.5$  ml, respectively. 1000 mL blood loss occurred in 1 (1.56%) received puerperal Pabal (1570 ml) and 3 (4.84%) with oxytocin (from 1200 to 2300 ml).

In the analysis of side effects associated with the use of carbetocin (pub) and oxytocin, found that the percentage of complications was higher after administration of oxytocin (7 (11.29%)) to (2 (3.13%)).

#### P-0091 | POSTER | PREDICTION AND PREVENTION OF FETAL DEATH

#### A CASE REPORT OF A CHORIOANGIOMA OF PLACENTA: UNTIL WHEN TO WAIT?

Gomes I., Curado J., Palma MJ., Santos A. Garcia de Orta/Obstetrics

#### Abstract:

Chorioangioma is the most common histological type of placental tumors with a reported incidence ranging from 0.2% to 0.6%. It consists in a benign angioma arising from primitive angioblastic tissue of the placenta. Tumors less than 5 cm are usually symptomless, but when large, they may be associated with severe maternal and fetal complications probably because of arteriovenous shunts. They are mostly seen in multiple pregnancies and in female babies. Doppler ultrasound examination is the gold standard in primary diagnosis. The fetal outcome may be predicted by the vascularity intensity of the placental mass.

We report an unsuccessful case of a large chorioangioma diagnosed in the second trimester resulting in polyhydramnios and neonatal death. A 35-year-old third gravida presented to us at 24 weeks with history of abdominal distension and exacerbating dyspnea in the past 15 days. There was no significant maternal medical history. The infections study was negative. The ultrasound showed severe polydramnios (AFI: 44 cm), and a well-defined and vascularized echogenic mass measuring 55 x 55 mm was seen bulging on the fetal side. There was no gross structural abnormalities. The size of the placental tumor increased from the time of diagnosis to the end of pregnancy (89 x 77mm the last measurement). Maternal Nonsteroidal Anti-Inflammatory Drugs therapy and two amnioreductions were performed with drainage of a large quantity of amniotic liquid. Steroid administration for acceleration of fetal lung maturity was given. The fetal heart rate tracing always revealed reduced variability and no accelerations. At 29 weeks patient went into spontaneous preterm labor with apparent decelerations on the fetal trace. Due to suspicion of monitoring maternal frequency, an ultrasound was performed displaying intrauterine death. A female baby was born, weighing 1950g. She had a post-partum hemorrhage controlled by uterine compression, fibrinogen and oxytocic drugs. Macroscopic and microscopic examination confirmed the diagnosis of chorioangioma. The fetal autopsy revealed changes of chronic and recurrent hypoxia episodes, as well as an edema and vascular congestion affecting main part of tissues.

Although chorioangioma is rare, it should be considered as differential diagnosis in case of polydramnios. Large chorioangioma presenting with severe polyhydramnios is associated with a poor outcome, as in this case. Post-partum hemorrhage is a well-known maternal complication. It is important to understand until when we can delay the pregnancy termination. Close fetal monitoring helps in timely diagnosis and delivery.

#### P-0092 | POSTER | PREDICTION AND PREVENTION OF FETAL DEATH

## INCIDENCE OF ECHOGENIC AMNIOTIC FLUID AT TERM PREGNANCY AND ITS ASSOCIATION WITH MECONIUM

<u>Burçin Karamustafaoglu Balci,</u> Gokhan Goynumer Istanbul Medeniyet University, Goztepe Training and Research Hospital

#### Abstract:

**Objectives:** The presence of echogenic amniotic fluid at term gestation on sonography is uncommon. The presence of meconium, blood, or vernix caseosa in amniotic fluid may cause echogenity. The aim of our study was to investigate the incidence of echogenic amniotic fluid at term pregnancy, and to determine how often echogenic amniotic fluid was associated with meconium.

**Methods:** This retrospective study was conducted in the Obstetrics and Gynecology Department of Istanbul Medeniyet University, Goztepe Training and Research Hospital after approval by the institutional ethics committee. All singleton pregnant women at term who were admitted to our labor unit and who delivered within 24 hours of the ultrasound scan were included in the study. Inclusion criteria were women with singleton pregnancies, at term (37-42 weeks of gestation), and who gave birth vaginally or by cesarean section within 24 hours of the ultrasound scan. Exclusion criteria were pregnancies where gestational age was not known (absent first trimester ultrasound or unknown last menstrual period), multiple pregnancies and pregnancies that would not end within 24 hours of the ultrasound scan. Written informed consent was obtained from patients. Amniotic fluid was considered echogenic when the echonenicity was similar to placenta, myometrium or fetal parts and when this pattern was present throughout the amniotic cavity. For each woman, gestational age, maternal age, gravidity, parity, the character of the amniotic fluid on ultrasound at admission (clear or echogenic), birth weight, the character of the amniotic fluid on artificial or spontaneous rupture of membranes or on cesarean section (clear / with vernix / meconium-stained) were recorded.

**Results:** In total, 278 patients fulfilled the inclusion criteria. When amniotic fluid was assessed on ultrasound, among 278 patients, 9 patients' amniotic fluid was echogenic, so, the incidence of sonographically echogenic amniotic fluid at term gestation was found as 3.2%. On the other hand, when amniotic fluid was assessed at delivery (during labor when the amniotic membrane was ruptured or during cesarean section), 224 patients' amniotic fluid was clear (80.6%), 25 patients' amniotic fluid contained vernix (9%), and 29 patients' were meconium-stained (10.4%). Among the 9 patients whose amniotic fluid was echogenic, 4 patients' amniotic fluid contained vernix (44.4%), and 4 patients's was meconium-stained (44%). Only one patient's amniotic fluid was clear. The characteristics of amniotic fluid of patients who were classified as having clear amniotic fluid on ultrasound (n=269) are listed in Table 1. These data showed a sensitivity and specificity of 13.79% and 97.99%, and a positive and negative predictive value of 44.44% and 90.7%, respectively, for echogenic amniotic fluid seen on ultrasound in identifying meconium-stained amniotic fluid.

**Conclusions:** The incidence of echogenic amniotic fluid at term gestation was found as 3.2%, and, 44.4% of patients with echogenic amniotic fluid was associated with meconium is a frequent cause of echogenic amniotic fluid according to our findings.

#### P-0093 | POSTER | PREDICTION AND PREVENTION OF FETAL DEATH

#### INCIDENCE OF FETAL LOSS IN WOMEN WITH INHERITED THROMBOPHILIA

<u>Costin Berceanu</u>, Voicu Diana, Vasilescu Sorin, Octavian Munteanu, Oana Bodean, Costin Berceanu, Elvira Bratila, Calin Boeru, Monica Mihaela Cirstoiu

Obstetrics & Gynecology, The University of Medicine and Pharmacy of Craiova, Romania

#### Abstract:

Thrombophilia is an abnormality of blood coagulation which correlates with a hypercoaguable state. This condition leads to thrombosis at the site of implantation or in the placental blood vessels. Inherited thrombophilias include factor V Leiden mutation, protein C deficiency, protein S deficiency, antithrombin deficiency and methylenetetrahydrofolate reductase mutations. Objective: The aim of this study was to examine the association between inherited thrombophilia and miscarriages.

**Methods:** A retrospective study was conducted in Bucharest Emergency University Hospital for a period of 5 months between 1 September 2015 and 1 February 2016. The researchers enrolled 100 pregnant women with average age 28.5 years. Pacients were included in R019.10 project "Improved healthcare for high-risk pregnancy, premature birth, and haematological diseases". All the patients included in the study were tested for hereditary thrombophilia. Results: Patients included in the study were pregnant women with gestational ages ranging from 5 weeks to 41 weeks. In our study the highest incidence was found at the mutation of the PAI-1 – heterozygous(68%), MTHFR gene heterozygous(38%) and antithrombin deficiency(11%). Combined thrombophilia (which is either a combination of acquired and inherited thrombophilia, or a combination of more than one inherited thrombophilic gene defect) was reported more often involved as a cause of miscarriages in our study- 12% of patients with combined thrombophilia suffered at least 3 miscarriages.

**Conclusions:** The risk of fetal loss was increased in women with thrombophilia.Our study indicates that a combination of risk factors, including multiple inherited thrombophilic defects have a strong association with recurrent pregnancy loss.

Key words: miscarriage, thrombophilia, pregnancy

#### P-0094 | POSTER | PREDICTION AND PREVENTION OF FETAL DEATH

#### PRETERM INTRA-UTERINE DEATH DUE TO FETAL SUICIDE: A CASE REPORT

<u>Aulia Rahman</u>, Agung Sunarko Putra, Fransiscus OH. Prasetyadi Centre of Naval Hospital Surabaya / Department of Obstetrics and Gynecology

#### Abstract:

Fetal suicide is a rare condition causing intra uterine fetal death, unpredictable and making emotionally devastating for parents and clicians. Umbilical cord being an important organ that responsible to make oxygen, nutritional and some material aspects sufficiently deliver from placental to the fetus during in-utero. We present a case of preterm intra uterine fetal death due to fetal suicide. After birth, we found the baby's hand holding tightly his umbilical cord, and also the umbilical cord coiled in the fetus body. During pregnancy, antenatal visit had been done twice previously, with the results were within normal limits. Unfortunately, fetal autopsy to confirm the cause of fetal demise can not be performed. Since the fetal demise sometime is unpredictable, the mother should aware the fetal decreasing movement and check it as soon as possible. Due to advancement 3D 4D ultrasound technology, Doppler and KANET assessment should be done routinely to evaluate the fetal well-being.

**Keywords:** Fetal suicide, Umbilcal cord, Doppler, KANET.

## P-0095 | POSTER | PREDICTION AND PREVENTION OF PRETERM BIRTH EFFECT OF CORD ANOMALIES ON OBSTETRIC AND NEONATAL OUTCOME

<u>Alberto Puertas Prieto</u>, Susana Ruiz Durán; Laura Revelles Paniza *Virgen de las Nieves University Hospital. Obstetrics and gynecology department.* 

#### Abstract:

The objective was to evaluate the frequency and to identify risk factors associated with anomalies of cord and perinatal outcomes.

Materials and methods: A retrospective case-control was performed from July2003 to December2015, involving all women with singleton pregnancies attended at Virgen de las Nieves University Hospital, Granada, Spain. We compared patients with true umbilical cord knot (TUCK), velamentous cord insertion (VCI), cord around the neck (CAN)against patients with a normal umbilical cord(NUC). The register includes all births fetuses over 24weeks gestation or with a weight greater than 500g. Patients with twin pregnancy, known fetal or chromosomal anomalies and those with other pathologies different from funicular were excluded from the study. We evaluated the following clinical characteristics: maternal age, gestational age, parity, neonatal sex, pre-existing or gestational hypertension, mode of onset (spontaneous, labor induction and elective cesarean) and ending mode (spontaneous, cesarean and instrumental). In the case of instrumental or cesarean delivery we registered the reason in a new variable called the non-reassuring fetal heart rate(NRFHR). The neonatal variables included were fetal sex, birth weight, meconium, Apgar score, umbilical cord pH and admission to the neonatal intensive care unit(NICU). To compare numerical variables we used the Student's t -test, and to compare qualitative variables we used the Chi square-test. Values of p<0.05 were considered significant.

**Result:** The final study sample included of 31,877deliveries, which resulted in the birth of 272(0.9%) with TUCK, 29(0.1%) with (VCI),5212(16.4%) with (CAN) and 26,118(81.9%)with NUC. The cord anomalies were significantly more frequently multiparous (15.2%vs18.2;p<0.05), and there was a higher proportion of male infants (18.9%vs15.9%;p<0.05)compared with the control group. Emergency cesarean were more common in the cords anomalies (19.7%vs11.6%,p<0.05). All other pregnancy and delivery characteristics were similar for women in the study and control groups.

**Conclusion:** The cord anomalies are relatively common and it is associated with increased incidence of emergency cesarean for non-reassuring fetal heart rate. During birth, however, it's clinical significance seems to be minor. At present, little-if anything-can be done to prevent fetal death ascribable to cord anomalies because diagnosis using ultrasonography is challenging; however, the risk of death is still small.

#### P-0096 | POSTER | PREDICTION AND PREVENTION OF PRETERM BIRTH

## PECULIARITIES OF PREGNANCY IN WOMEN WITH CONGENITAL DEFECTS OF THE UTERINE DEVELOPMENT

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#### Abstract:

The aim of the study was to study the anamnesis, the course and outcome of pregnancy in women with various developmental uterus defects. Retrospective study of 38 pregnant women medical documentation with congenital uterus anomalies treated in the gynecological department of the Regional Perinatal Center (Rostov-on-Don, Russia) for a threatening miscarriage was conducted for the period from 2012 to 2016.

The statistical reliability of the obtained data was estimated using the Mann-Whitney U test and the Pearson  $\chi 2$  criterion. All pregnant women were divided into 4 groups: in 20 (52.6%) patients bicornic uterus was diagnosed, in 12 (31.6%) - saddle uterus, in 2 (5.3%) - doubling uterus, in 4 (10.5%) - incomplete intrauterine septum. 31.6% of women had a history of 2 and more pregnancy losses, while sporadic interruption of pregnancy up to 22 weeks occurred in 21.1%. 15.8% of women had infertility. Two and more pregnancy losses in anamnesis was statistically significantly more frequent (p <0.05) in women with bicornic uterus (50.0% versus 11.1% in the remaining groups). In our study 4 women with congenital defects of uterine development had pregnancy losses (2 cases in women with a saddle-uterus, 2 cases with bicornic uterus). The overall incidence of isthmic-cervical insufficiency was 31.7%, with 21.1% observed in women with bicornic uterus, 5.3% with a saddle-uterus and 5.3% with incomplete septum. The frequency of preterm labor was statistically significantly higher (p <0.05) in women with bocrnic uterus (44.4% vs. 12.5% in the remaining groups).

The main method of delivery in all groups was a cesarean section with frequency of 70.6%. The frequency of operative delivery was 88.8% in women with bicornic uterus, 60.0% with saddle-uterus, and 100.0% with doubling uterus and incomplete septum.

**Conclusion:** bicornic uterus is associated with a risk of miscarriage, isthmic-cervical insufficiency, premature birth, abnormal fetal presentation

#### P-0097 | POSTER | PREECLAMPSIA - TREATMENT

#### HYDROXYCHLOROQUINE: BETTER OUTCOME IN PREGNANCY WITH APS

Moghtadaei Parisa, Nikpour Fatemeh *Laleh Hospital* 

Abstract:

**Objective:** The prospective cohort study to assess pregnancy outcomes in women with AntiPhospholipid Antibodies (APS) treated with hydroxychloroquine (HCQ) in addition to other drugs

**Method & Materials:** one-hundred thirty pregnancies were enrolled .71 patients were treated with HCQ at least four months before pregnancy and continued through the gestation (group 1), 59 patients with APS were not treated with HSQ (group 2).

**Results:** HSQ treatment was association with higher rate of live birth (75% vs. 45% p=0.003). The association of fetal loss >12 weeks (4% vs. 15%p=0.05), placenta-associated complications (6% vs. 17% p=0.05) were less in group 1.

**Conclusion:** Patients with APS may benefit from hydroxychloroquine treatment in pregnancy

**Key words:** hydroxychloroquine, APS, pregnancy outcome

#### P-0098 | POSTER | PREECLAMPSIA PREDICTION AND PREVENTION

#### INFLAMMATION BIOMARKERS IN PREECLAMPSIA

<u>George Daskalakis</u>, A. Papapanagiotou, M. Sindos, P. Antsaklis, P. Fotinopoulos, D. Loutradis Department of Obstetrics and Gynecology, National and Kapodistrian University of Athens

#### Abstract:

Pre-eclampsia (PE) is an important cause of maternal and perinatal mortality affecting 3% to 5% of pregnant women. The aetiology of the disease is unknown but recent studies have revealed that this disorder appears to originate in placenta and is characterised by widespread maternal endothelial dysfunction. Hypoperfusion, hypoxia, and ischemia, the chief factors in the pathogenesis of preeclampsia, lead to the release of many inflammatory factors by the placenta into the maternal circulation.

These factors cause maternal endothelial dysfunction and subsequent systemic signs and symptoms of pre-eclampsia. Several inflammatory biomarkers such as CRP , transforming growth factor –b, tumor necrosis factor –a , interferon-g, leptin, free radicals, changes in lymphocyte population in blood, IL-10 and others cytokines are associated with PE . As PE is an important cause of maternal and perinatal mortality in the world, in future studies it will be important to determine whether these markers play a causal role in the process in order to have a better prognosis, diagnosis and understanding to this disorder.

#### P-0099 | POSTER | PREECLAMPSIA PREDICTION AND PREVENTION

#### CELL-FREE DNA AT NORMAL PREGNANCY AND ANEMIA IN RELATION TO BMI

<u>Baev O.,</u> Karapetyan A., Krasnyi A., Khlestova G., Balashov I. *Research Centre for Obstetrics, Gynecology and Perinatology* 

#### Abstract:

The total cell-free DNA (cfDNA) in the blood of pregnant woman is represented by maternal and fetal fractions. Level of the fetal cfDNA can be used for prediction of pregnancy-related disorders, such as preeclampsia, intrauterine growth restriction and preterm labour. However, it remains unclear whether cfDNA concentration depends on body mass index (BMI) and blood composition.

Aim of this study was to determine changes of the maternal and fetal cfDNA concentrations during pregnancy, as well as the influence of BMI and anemia. Fractions of cfDNA in maternal plasma were analyzed by means of methylation patterns in the promoter of the RASSF1A gene among 24 women at 11-14, 24-26, 30-32 weeks of pregnancy. Mean concentration of the maternal cfDNA was 14300,9±5294,1 GE/ml at 11-14 weeks, 13413,7±6187,4 GE/ml at 24-26 weeks and 13902,7±6526,0 GE/ml at 30-32 weeks (p>0.05). Mean fetal cfDNA levels at 11-14 and 24-26 weeks were similar (1265,1±577,5 and 1309,1±561,0 GE/ml), respectively. At 30-32 weeks mean concentration of fetal cfDNA was significantly higher than at 11-14 and 24-26 weeks (1742,0 GE/ml) (p<0,05). There was no correlation between maternal or fetal cfDNA concentrations and BMI at pregnancy. Further, the pregnant women were divided into 2 groups: with (11) and without anemia (13). Fetal cfDNA concentration did not differ between groups. However, maternal cfDNA concentration at 24-26 and 30-32 weeks was significantly lower in anemic women compared to healthy women, 12607,1±6923,9 versus 14096,3±5685,5 GE/ml and 11761,4±4976,3 versus 15714,6±7296,1 GE/ml, respectively (p<0,05). Thus, concentration of the maternal cfDNA remains stable during pregnancy. The fetal cfDNA concentration remains relatively stable up to 24-26 weeks of gestation, but than significantly increases by 30-32 weeks. Levels of maternal and fetal cfDNA do not vary with maternal BMI. Maternal cfDNA levels are significantly lower in women with anemia.

**Key words**: fetal DNA, preeclampsia, preterm labour, growth restriction

#### P-0100 | POSTER | PREECLAMPSIA PREDICTION AND PREVENTION

## ACUTE MATERNAL INFECTION AND RISK OF PRE-ECLAMPSIA IN WOMEN WITH GENETIC PREDISPOSITION TO HIGH BLOOD PRESSURE

<u>Tatiana Belokrinitskaya,</u> Nataly Frolova Valeriya Pletnyova Kristina Kolmakova *Chita State Medical Academy, Russia* 

**Background.** Large epidemiologic studies support the role of genetic predisposition to preeclampsia, but the results are largely inconclusive across different populations. It is known that infections in pregnancy may be confounding factors of preeclampsia. Numerous genetic studies shown significant associations between *AGTR1*-1166CC, *AGTR2*-1675AA, and *AGT*-521CC polymorphisms and high blood pressure.

**Objective.** To assess the association between acute maternal infection and risk of preeclampsiain pregnant women with *AGTR1*-1166CC, *AGTR2*-1675AA, *AGT*-521CC gene polymorphisms.

**Methods.** This retrospective case-control study enrolled 50 women with severepreeclampsia and 50 control womenwith singleton pregnancy. Median age of women was 31.5±3.3 and 31.1±3.9 years, respectively (p>0.05). All women had not a history of hypertension, diabetes, renal disease before this pregnancy. Gene polymorphisms were detected by the technique of polymerase chain reaction-real time. We calculated odds ratios and 95% confidence intervals for preeclampsia comparing women exposed and unexposed to infection using multivariable conditional logistic regression.

**Results.** We found that risk of preeclampsia was increased in women with urinary tract infection, acute respiratory tract infection, vulvovaginalinfection (Table). Cytomegalovirus infection, toxoplasmosis, anaerobes and bacterial vaginosis were detected only in patient with preeclampsia.

Table. The association between maternal infectionand risk of preeclampsia, n (%)

				, , ,
Exposureinpregnancy	Preeclampsia (case- group), n=50	Control group, n=50	OR	95% Cl
Acute respiratory tract infection	14 (28%)	8 (16%)	1.8*	0.71-3.63
Acute pyelonephritis	5 (10%)	1 (2%)	5.0*	1.69-10.11
Asymptomaticbacteriuria	26 (52%)	3 (6%)	8.7*	2.80-8.94
Cytomegalovirus infection	1 (2%)	0		
Toxoplasmosis	1 (2%)	0		
Acutevulvovaginalcandidosis	4 (8%)	1 (2%)	4.0*	1.45-9.63
Anaerobesandbacterialvaginosis	2 (4%)	0		
Vaginitis and cervicitis (total)	15 (30%)	6 (12%)	2.5*	0.15-4.83
Ureaplasma species, urealyticum, parvum	6 (12%)	5 (10%)	1.2	0.21-3.54
Chlamydia trachomatis	2 (4%)	0		
Trichomonasvaginalis	1 (2%)	0		
Intestinalbacteria	6 (12%)	1 (2%)	6.0*	0.79-10.53

<sup>\*</sup>p<0.05

**Conclusion.**Our data support that acute maternal infection is associated with an increased risk of preeclampsia more than genetic predisposition determined by *AGTR1*-1166CC, *AGTR2*-1675AA, *AGT*-521CC gene polymorphisms. Further research is required to elucidate the underlying mechanism of this association.

*Keywords:* preeclampsia, genetic predisposition, maternal infection.

#### P-0101 | POSTER | PREECLAMPSIA PREDICTION AND PREVENTION

#### **PREECLAMPSIA**

<u>Sabina Radonja,</u> Kudo Amela, Šaldo Dženana Klinika za ginekologiju i akušerstvo, Sarajevo, Bosnia and Herzegovina

#### Abstract:

**Introduction:** The importance of preeclampsia is particularly high, remaining one of the two most common causes of maternal death in both developed and developing countries. The incidence of preeclampsia ranges from an average of 4 to 8% of pregnancies. Symptoms of preeclampsia are the consequence of vasoconstriction and reduced perfusion, especially of the essential organs. The importance of a nurse in recognizing and preeclampsia patient care is of great importance. Symptoms associated with the occurrence of preeclampsia such as headache, blurred vision, blinking in the eyes, and thrombosis should be observed in time. It is important to evaluate whether there is a predisposing risk factor that would indicate the occurrence of hypertensive disease during pregnancy. It is important for us to measure the weight of the body so that we can compare its changes during pregnancy. During the prenatal period, the nurse should educate patients about importance of the diet, inform her about the symptoms of preeclampsia in order for patient to be able to respond in time and seek medical assistance.

**Conclusion:** Preeclampsia is a disease that occurs due to vasoconstriction and reduced perfusion, especially the essential organs and is a serious condition in pregnancy. Nurses play a major role in educating pregnant women and are the best health care workers for giving advice and establishing good communication. Not only does nurse provides psychological support to the patient but also educates and provides information about the disease.

#### P-0102 | POSTER | PREECLAMPSIA PREDICTION AND PREVENTION

## RISK SCORING INDEX FOR DEVELOPMENT OF PREECLAMPSIA AMONG WOMEN: A RETROSPECTIVE COHORT STUDY

<u>Vanessa Marie Lim</u>, Brenda Bernadette B. Zamora *Quezon City* 

Abstract:

**Objectives**: To identify the clinical risk factors associated with occurrences of preeclampsia among women at St. Luke's Medical Center, and incorporate the significant risk factors in a formula for a preeclampsia risk scoring index.

**Methods:** Retrospective cohort study of women who had live births at St. Luke's Medical Center from January 2015 to April 2016. The variables considered were parity, history of preeclampsia, body mass index, maternal age, interpregnancy interval, chronic hypertension, diabetes mellitus, antiphospholipid antibody syndrome, systemic lupus erythematosus, renal disease, maternal infection, multifetal pregnancy, and mean arterial pressure. The outcome measure was the development of preeclampsia. Results of the logistic regression analysis were subsequently used to develop a risk scoring index. Computed scores were plotted in a receiver operating characteristic curve and cut-off values were determined.

**Results:** The overall prevalence of preeclampsia was 4.5%. Presence of chronic hypertension (OR 4.179, 95% CI 7.572-563.181) and respiratory tract infection (OR 3.128, 95% CI 4.196-124.263) showed the strongest significant association with development of Preeclampsia. The odds of developing preeclampsia were also increased in patients who had gestational diabetes mellitus (OR 1.222, 95% CI 1.559-7.389), urinary tract infection (OR 2.455, 95% CI 5.723-23.678), and vaginal infection (OR 1.577, 95% CI 2.126-11.020). The formulated preeclampsia risk scoring index was 5.75, with specificity of 91.8%, sensitivity of 74.5%, and positive likelihood ratio of 9.2.

**Conclusion**: Maternal age, and presence of chronic hypertension, gestational diabetes mellitus, and maternal infection significantly affect development of preeclampsia among women studied. Using the formula derived from this study, with a specificity of 91.8%, sensitivity of 74.5%, women with a score of greater than or equal to 5.75 are more likely to develop preeclampsia 9 times more than those with a score of less than 5.75

#### P-0103 | POSTER | PREECLAMPSIA PREDICTION AND PREVENTION

#### MANAGEMENT OF PREGNANT WOMEN WITH HEREDITARY THROMBOPHILIA

Roxana Elena Bohiltea, Voicu Diana, Vasilescu Sorin, Octavian Munteanu, Oana Bodean, Monica Cirstoiu

Department of Obstetrics & Gynaecology, Bucharest Emergency University Hospital University of Medicine and Pharmacy Bucharest "Carol Davila"

#### Abstract:

**Objectives.** This article reviews the incidence of thrombophilia in pregnant women and our management related to the inherited thrombophilias during pregnancy.

**Methods.** The study is retrospective. Our study group included 120 pregnant women, mean age 29 years. The diagnosis of pregnancy in all patients included in the study was based on clinical examination, pregnancy test and transvaginal or abdominal ultrasound. Samples we collected were protein C, protein S, antithrombin III, homocysteine, lupus anticoagulant, LA ration, APCR. Genetic assays collected in the project included Factor V Leiden, Prothrombin, MTHFR, Factor XIII and PAI-1.

**Results.** We have concluded that the highest incidence – 33.33% - was mutation of MTHFR heterozygous gene, followed by mutation of the PAI-1 gene - heterozygous mutation, 20.8%. The incidence of high risk hereditary thromphilia is low in our study group, so the frequency of Leiden factor homozygote mutation is equal to the incidence of homozygous mutation of the prothrombin gene- 0.83%.

**Conclusions.** The combination of polymorphisms in the involved genes in the coagulation process is a high risk factor for the clinical manifestations of thrombophilia. All patients included in our study with high-risk thrombophilia received prophylactic anticoagulant therapy.

**Keywords:** study, thrombophilia, pregnancy

#### P-0104 | POSTER | PRENATAL DIAGNOSIS

#### FETAL INGUINO-SCROTAL HERNIA: A CASE REPORT

Mario Krishna, Azen Salim, Achmad Yani, Giri Respati *Pondok Indah Hospital* 

#### Abstract:

Fetal inguino-scrotal hernia is a rare condition because usually hernia occurs due to higher intraabdominal pressure. In fetus, it is considered that inguino-scrotal hernia occurs when testes are descending to scrotum. Scrotal tumor and hydrocele are the differential diagnosis for bowel herniation because of the similar finding ultrasonographically. An expectation management is preferred when the diagnosis of fetal inguino-scrotal hernia is established. If bowel obstruction develops due to bowel herniation, some consideration still should be assessed before terminating the pregnancy and the presence of neonatal surgeon should also be preferred.

#### P-0105 | POSTER | PRENATAL DIAGNOSIS

## CASE REPORT – A CASE OF PRENATALLY SUSPECTED CONGENITAL CHLORIDE DIARRHOEA

<u>Maria Pilar Aparisi Gomez</u>, Joana De Sousa, Kelly J., Watkin S., Bazzocchi A. *Auckland District Health Board* 

#### Abstract:

Congenital chloride diarrhoea is a rare genetic condition, characterised by abundant, watery stools which contain an excess of chloride. Affected individuals suffer intra-utero and lifelong diarrhoea, which results in electrolyte and water deficits that have many other physiological alterations as a consequence. Treatment is focused on symptoms, and prompt diagnosis is paramount to reduce perinatal mortality and favour normal growth and development.

The aim of this case report is to illustrate a typical case of congenital chloride diarrhoea, and through the analysis of the case perform a review on diagnostic features, suspected aetiology and current management and treatment trends.



Ultrasound image of 29 week fetus affected with Congenital Chloride Diarrhoea. Note fetal bowel dilatation with "honeycomb" appearances.

#### P-0106 | POSTER | PRENATAL DIAGNOSIS

## A "RARE EVENT" PRENATAL CASE REPORT OF LUNG SEQUESTER WITH EXTROCARDIA

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#### Abstract:

Lung sequester characterized by a mass of non-functioning pulmonary parenchyma which is separated from normal lung and receives its blood supply from the systemic circulation and has its own pleura. It has prevalence 0.15-6.4% of all congenital pulmonary malformations (male: female = 4:1). 1The prognose is dependent on associated anomalies and the presence of non-immune hydrops fetalis. Hydrops fetalis does not result directly from the sequestered lobe itself but rather from a mechanical deformity of the mediastinum produced by the associated hydrothorax. 2 The antenatal sonographic findings of extralobar pulmonary lung sequestration were previously described by Romero et al, included the sequestered lung appears as an echogenic, non-pulsatile intrathoracic mass. A shift of the mediastinum is commonly seen 3. The most common location is the basal region of the left hemithorax. A 35-year-old, gravida 2 para 1-was referred in week 21+5 of gestation to our center for antenatal care organ screening. She has unremarkable medical history, except previous caesaria delievery because of breech presentation.

The fetal scan revealed an echogenic mass of the left hemithorax with dextroposition of the heart without cardial decompensation, diaphragmatic defect, nor hydrops fetalis. The differential diagnosis in this case include cystic adenomatoid malformation,and mediastinal teratomas. 3D-colour doppler imaging established the diagnosis of lung sequestration by an anomalous blood supply. A work up of intrathoracic pulmonary sequestration diagnosis was begun with perinatology meeting, including obstetrician, pediatrician, and pediatric surgeon.

The caesaria delievery was in week 38+5 of gestation after respiratory distress syndrome prophylaxis at 28.weeks . Newborn : male, 3610g, length 52 cm, head circumference 35 cm, GAR 9/9/10, NapH 7,26; BE -1,5 mmol/l. The prenatal diagnosis of pulmonary sequestration is a rare event. The diagnosis is usually made postoperatively or at autopsy1,4. Early diagnosis is essential to allow intervention aimed at preventing and reversing hydrops fetalis and pulmonary hypoplasia. A high index of suspicion may make prenatal diagnosis somewhat easier, and leads to better outcome.

#### P-0107 | POSTER | PRENATAL DIAGNOSIS

## CONGENITAL ANOMALIES DIAGNOSED PRENATALLY IN THE FETAL DIAGNOSIS AND THERAPY UNIT, UNIVERSITY HOSPITAL OF THE WEST INDIES, JAMAICA

<u>Nadine Johnson</u>, C. Kelly, T. Hunter-Greaves, K. Shaw-Kelly, G. Harrison, N. Johnson *Fetal Diagnosis and Therapy Unit, Department of Obstetrics and Gynaecology, Kingston* 

#### Abstract:

**Objectives**: The Fetal Diagnosis and Therapy unit was established in July 2008 and is the only Perinatologist staffed facility in Jamaica. A review of anomalies seen was published after the first 18 months of the units' inception. The objective of this study was to review the incidence and pregnancy outcomes of anomalies diagnosed from the units' inception until December 2015.

**Methods:** A search was done of the units' database to identify all anomalies seen during the study period. Data was extracted, inclusive of maternal demographics, nature of anomalies, perinatal outcomes, antenatal and postnatal interventions.

**Results:** Total births between July 2008 to December 2015 was 17, 133. The incidence of anomalies was 1.1% (184). One hundred and four (56%) were peripheral referrals, while 74(40%) were registered hospital patients. A median of 22 (20-29) anomalies were seen yearly. Mean maternal age and weight were  $29.32 \pm 6.6$  years and  $69.16 \pm 13.5$  kg respectively, median parity 1 and gravidity 2. Maternal medical disorders were found in 35 cases (19%). Mean gestational age at prenatal diagnosis was  $24 \pm 5.7$  weeks. Most anomalies were seen in the genitourinary system (47, 25.5 %) followed by chromosomal (42, 22.8%), central nervous (39, 21.2%) and gastrointestinal systems (17, 8.7%). Sixty four (34.8%) patients had further investigations; fetal echocardiogram, MRI, amniocentesis. Sixty three (34%) patients delivered at term, 60 (32.6%) terminated and 10 (5.4%) had an intrauterine demise. Mean gestational age at delivery was  $33 \pm 7.1$  weeks, mean birth weight  $2.3 \pm 1.2$  kg, 12 (6.5%) had neonatal deaths and 10 (5.4%) required neonatal surgery. Autopsy results were available in 18 (22%). Prenatal diagnosis correlated with postnatal findings in 91.2%.

**Conclusion:** The incidence of anomalies is similar to that previously published (1.1 vs 1.5%). Genitourinary, chromosomal, central nervous system and gastrointestinal remain the most frequent.

#### P-0108 | POSTER | PRENATAL DIAGNOSIS

#### PRENATAL DIAGNOSIS OF MECKEL-GRUBER SYNDROME: A CASE REPORT

Maria João Palma, Gomes I., Curado J., Santos A. *Hospital Garcia de Orta- Serviço de Glnecologia e Obstetrícia, Almada* 

#### Abstract:

Meckel-Gruber syndrome (MGS) is a rare autosomal recessive lethal malformation characterized by the typical triad: meningo-encephalocele, polycystic kidneys and postaxial polydactyly. It is a disease with a recurrence rate of 25% whose most reliable method for diagnosis is prenatal ultrasound. We present the case of a 33 years-old mother, nulliparous, in which the diagnosis of MGS was made at 14 weeks of gestation based on ultrasonographic findings: occipital encephalocele, bilateral cleft lip, polycystic kidneys and polydactyly. The parents were informed of the poor fetal prognosis and requested the termination of pregnancy at 19 weeks of gestation. The result of chorionic villus sampling was normal (46XX).

The fetal autopsy was compatible with the diagnosis of Meckel-Gruber syndrome. Meckel-Gruber syndrome is a very rare and lethal disorder. The case we report is about a fetus, of non-consanguineous parents, who presented in the first trimester ultrasound the complete phenotype triad of the syndrome. The mortality rate is 100% and in view of the high index of recurrence (25%), subsequent genetic counseling and early surveillance in referral centers in a future pregnancy is fundamental.

**Keywords:** Meckel-Gruber syndrome, prenatal diagnosis

#### P-0109 | POSTER | PRENATAL DIAGNOSIS

#### **CONGENITAL BILATERAL RADIUS APLASION - A CASE REPORT**

Aleksandar Grdinić, Vojislav Miketić, Vojislav Šimun, Petar Knežević

Clinical Center of Montenegro, Gynecology and obstetrics clinic, Patology pregnancy

#### Abstract:

Congenital bilateral radius aplasion is a very rare fetal anomaly, which is often conjured with other anomalies such as haematologial, urogenital or skeletal. If found with pancitopenia its called Fanconi anaemia, but with isolated thrombocytopenia it makes TAR syndrome. Isolated bilateral radial aplasia is extremely rare (1 in 200000 cases).

Etiology of this condition is still questionable. This is a case of 32-year old patient, primipara, 27 gestational weeks with no disease history, who was sent to our clinic for further examination. Pregnancy was regularly controlled with normal prenatal tests (Double test). The ultrasound examination showed the fetus with all heart and cerebral structures were normal. Nasal bone, facial structures and upper palate were also regular, both forearms had only one deformed bone (ulna) with hands in hyperreflexed position. Upper hand, legs and feet were normal structure. In order to confirm diagnosis and to decide on further treatment, patient was presented to the Consilium for Congenital Anomalies. Patient was advised, because of severe fetal anomaly which heavily aggaviates the quality of postnatal life, to terminate the pregnancy. Feticid was done, by the approval of Ethical Comitee, and fetal blood sample was taken for futher genetical and hematological examination. After administration of prostaglandins, death fetus of female sex was born, 920 grams in weight, with visibly deformed and short both forearms and crumpled hands. Billateral radial aplasion was confirmed by X ray examination upon the birth. Fetus afterwards was sent to autopsy.

Karyotype was found normal for female sex (46, XX). The goal of this rare case presentation is to show the importance of its early detection, which is archiavable by ultrasound exam, and thus enables prevention of heavy postnatal disablement.

**Key words:** Prenatal, anomaly, ultrasound.

#### P-0110 | POSTER | PRENATAL DIAGNOSIS

#### PHENOTYPIC SPECTRUM OF GOLDENHAR SYNDROME: A DESCRIPTIVE STUDY

<u>Hatem Ben Salem,</u> M.T. Lamouchi, N. Kasdallah, M. Sellami, I. Kasraoui, H. Kbaier, S. Blibech, M. Douagi

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#### Abstract:

**Background:** Goldenhar syndrome (GS) or oculo-auriculo-vertebral dysplasia is a sporadic rare condition due to a defect in the development of first and second branchial arches. It is characterized by a combination of various anomalies involving face, eyes, ears, vertebrae, heart, and lungs. Antenatal diagnosis is possible by ultrasonography. Its etiology is not fully understood.

**Objective:** To illustrate the variety of clinical features of GS. Materiel and methods: A retrospective descriptive study of the patients diagnosed with GS followed in our Neonatal Resuscitation and Intensive Care Unit over the last 15 years.

**Results:** We have identified four patients with GS during the study period; three males and one female. Antenatal diagnosis was achieved in only one case with indication of medical termination of pregnancy at 26 weeks of gestation. Three patients had various degree of hemifacial microsomia, and one patient presented a left facial paralysis. Two patients had mandibular hypoplasia. Microtia with abnormal implantation of the ears was seen in two cases and the presence of preauricular tags occurred in three cases. One patient had cleft palate. As ocular defects, epibulbar dermoid or dermoid cyst and right anophthalmia in another case were seen. Two patients had vertebral abnormalities: spina bifida aberta with myelo-meningocele in the medullar MRI in one case and dystrophy of dorsal rachis without kyphosis and/or scoliosis in another case. Karyotype, cardiac and renal sonography and brain MRI of the three patients were normal. The morphology ultrasound of the one patient detected a complex cardiopathy motivating medical termination of pregnancy.

**Conclusion:** We illustrate the variation of phenotypic spectrum of Goldenhar syndrome that may make diagnosis difficult.

**Key words:** Goldenhar syndrome, neonate.

#### P-0111 | POSTER | PRENATAL DIAGNOSIS

# NASOFRONTAL ENCEPHALOCELE, PRENATAL DIAGNOSIS AND TREATMENT- CASE REPORT

<u>Vojislav Miketic,</u> Danko Natalic, Snezana Raspopovic, Azis Haliti *GynObs Clinic, Clinical Centre of Montenegro* 

#### Abstract:

Encephalocele is a form of neural tube defect with overall incidence of 1:5000 live births. Encephalocele is defined as protrusion of cranial contents beyond the normal confines of the skull, containing meninges or meninges with brain structures. There is no connection with chromosomal abnormality but genetics, as well as environmental factors and parental age play a significant role in incidence and recurrence rate. Typical and more common affected region in Europe and western countries is occipital, while frontal, nasal, orbital and ethmoidal localisation is more often seen in southeast Asia.

Depending of site, size and level of brain damage, the progosis is different. In case of large encephalocele, the prognosis is always poor and prenatal detection leads to pregnancy termination. We described a case of 28 years old patient (G2P1A0) presenting in early second trimester with sonographic findings of large nasofrontal encephalocele, complicated with enlarged ventricles and herniated brain structures. The patient decided for medical termination of pregnancy.

#### P-0112 | POSTER | PRENATAL DIAGNOSIS

#### TRISOMY 18 AND PRENATAL ULTRASOUND MARKERS - CASE REPORT

<u>Snezana Raspopovic,</u> Danko Natalic, Vojislav Miketic, Azis Haliti *GynObs Clinic, Clinical Centre of Montenegro* 

#### Abstract:

Trisomy 18 is the second most common autosomal trisomy among liveborn children after trisomy 21. The incidence is 1:6000 live births. Prenatal screening and maternal age are having an impact on liveborn prevalence. Risk rases with maternal age (between 30-45 years). There is also a small positive association of paternal age with trisomy 18. Antenatal diagnosis of trisomy 18 leads to termination of pregnancy in 90% of cases.

The most common soft sonographic markers detected in late first or early second trimester are increased nuchal translucency thickness and absence or hypoplasia of the nasal bone. One or mone sonographic abnormalities are present in 55% of cases (growth restriction, polyhydramnios, strawberry shaped cranium, choroid plexus cyst, overlapping of hands fingers, congenital heart defects, omphalocele or single umbilical artery. We described a case of 38 years old patient (G3P2A0) presenting in 16th week of pregnancy, with sonographic abnormalities (omphalocele, increased nuchal fold and deformities of hands fingers). The patient was previosly scheduled for prenatal diagnosis (amniocentesis) because of her age.

The results of amniocentesis reveled trisomy 18 and patient decided for medical termination of pregnancy.

#### P-0113 | POSTER | PRENATAL DIAGNOSIS

#### FETAL OVARIAN CYST: A CASE REPORT

<u>Hana Štimjanin-Jović</u>, Iriškić R, Hukeljić L, Husika M, Jakić A, Hodžić J *Zenica* 

#### Abstract:

Fetal ovarian cysts are the most commonly diagnosed abdominal tumors in the prenatal period. According to the common use of prenatal ultrasonography, the incidence of ovarian cysts have been increased both in utero and in the female newborn. The etiology is still not completely defined, but hormonal stimulation is generally considered to be responsible for the disease. In the most cases, the size of ovarian cysts is small, seeming to resolve spontaneously and are of no clinical significance. However various complications are described in association with ovarian cysts, and the most common is ovarian torsion with possible consequent loss of the ovary. In this article we reported the case of 30 year old gravida 2 para 1 with prenataly diagnosed fetal ovarian cyst. On sonographic scan in 32 weeks of gestation, biometrical measurments of the fetus were accurate for the gestational age. In left part of hemiabdomen an abdominal anechoic cyst 29,7 mm in diametar was diagnosed. Taking considere that the gender of the fetus was female, we suspected an ovarian cyst. The patient was informed about the condition and serial ultrasonographic scans were performed until birth. On the next follow up in 34 weeks of gestation the cyst increased in diametar to 41,4 mm. There was no size, consistency and echogenicity change in following exams.

After spontaneous vaginal birth in 41 weeks of gestation the fetus was evaluated by neonatologist who confirmed abdominal cyst without any other abnormalities. The only abnormality that was found is increased blood level of alpha-fetoprotein ( >300 IU/ml). Magnetic resonance was taken and the oval septal cystical lesion in left part of hemiabdomen was dominant 41x37x38 mm in diametar, with heterogenic intensity that was suspected on hemorrhage inside the cyst. The biopsy and pathohistological verficiation were suggested. The newborn underwent in abdominal laparotomy and the torsion of the ovarian cyst was detected, so the left ovariectomy was performed. Postoperative course of the patient was uncomplicated. Sonographic findings of adnexal torsion are not specific. A possible sign of torsion is fetal tachycardia, and it is assumed that is because of peritoenal irritation. Those signs were not present in our case. Clinical management in these and similar cases are not clearly answered and they are different among centers. The main objective is, if surgical treatment is indicated, to do as much possible preserving surgical approach. In cases with simplex ovarian cysts without signs of malignancy, torsion or acute abdomen, it is best to wait and see management with regualar ultrasound examinations.

Benefits of surgical management, besides the definite removal of the cyst and pathohistological verification, is separation of any adhesions between ovaries and pelvic organs. Ovarian cysts are most often functional and benign tumours, with follicular epithelium origin, but they can also occur as corpus luteum or theca lutein cysts.

**Keywords:** ovarian cyst, prenatal diagnosis

#### P-0114 | POSTER | PRENATAL DIAGNOSIS

# PATHOGNOMONIC ULTRASOUND APPEARANCES OF FETAL MECONIUM ILEUS (VOLVULUS) WITH PERITONITIS

Deny Kurniawan Saputra, Leifer, Carolin Schmidt, Matthias Belger, Heiko

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#### Abstract:

The meconium ileus is one of the most frequent causes (with 9-33%) of intestinal obstruction the newborn1. Hyperperistals in the proximal part of the intestine is pathognomic sign. The intrauterine volvulus is extremy rare event, with fetal life threatening consequence, due to a high risk of intestinal necrosis. Next step could lead to meconium peritonitis. This is often associated with ascites (50%). A 31-year-old woman, gravida 1 was referred in week 33+2 of gestation to our prenatal center because of suspected CTG with subjective decreasing fetal movement. First trimester screening and ultrasound organe screening in second trimester 'ex domo' with normal findings. The ultrasound examination of the current pregnancy at our center revealed dilated bowel up to 27 mm with cell-rich contents without distal peristals and local ascites up to 31 mm. The working diagnose of meconium ileus with meconium peritonitis was set up. Normal blood flow patterns in fetal circulation was detected by Doppler ultrasound.

We did the caesaria delivery in week 33+4 of gestation after completing prophylaxis newborn respiratory distress syndrome. Newborn: female, 1980g, length 44 cm, head circumference 31 cm, APGAR 3/5/7, NapH 7,35; BE -1,0 mmol/l. After 24 hours showed this female newborn massive abdominal distension with bilious vomit. During cito operation was confirmed intestine volvulus.

Prenatal ultrasound screening can encourage encourage the assessment of meconium ileus. The treatment should be in interdisciplinary concept with pediatrics, pediatric surgeon and anesthesiologist. The early prenatal assessment with postnatal optimal pediatric surgery have decisively improved the prognosis 2.

#### P-0115 | POSTER | PRENATAL DIAGNOSIS

### MANAGEMENT OF CONGENITAL ANTITHROMBIN DEFICIENCY DURING PREGNANCY-A CASE REPORT

<u>Panagiotis Tsikouras</u>, Anastasia Bothou, Anna Christoforidou, Anna Chalkidou, Dorelia Defteraiou, Xanthoula Anthoulaki, Stavros Fotopoulos, Stefanos Zervoudis, Georgios Galazios *Alexandroupolis/Obstetrics and gynecology, Alexandroupolis, Greece* 

**Objectives:** To manage thromboembolic event during pregnancy in case of antithrombin deficiency. Physiologic inhibitors of the crucial coagulation mechanism, including an intact vascular system, are antithrombin III, protein C and protein S. The possibility of thromboembolic events during pregnancy compared to non pregnant women is increased to four or fivefold factor in case of congenital or acquired antithrombin III deficiency.

**Method:** We report a case of a 19-years old female primigravida patient, who was recently diagnosed with congenital AT deficiency. She was referred for thrombophilia testing because a history of miscarriage, twice in the last two years. She had no history of deep vein thrombosis and no family history of thrombosis. Her basic screening for thrombophilia (PC, free PS, AT, APCR, LAC, FV-LEIDEN, FII G20210A mutation, fasting serum homocysteine, ACA antibodies, anti-b2GP1 antibodies) was normal, however showed an AT activity of 51%. Her mother and two first degree relatives had AT deficiency. One month after the diagnosis of congenital AT, she was pregnant again and we decided to manage her with adjusted-dose LMWH throughout pregnancy to avoid complications in mothers and their fetuses.

Results: She was monitored every three weeks with D-Dimers, AT and liquid anti-Xa. After Tinzaparin and AT levels she continued the treatment with 14.000 IU qd. With this dose the anti-Xa activity ranged between 0.46 and 0.79 IU/ml during the first six months of pregnancy. During the last trimester anti-Xa activity dropped and was maintained between 0.23 and 0.45 IU/ml. An attempt to raise the heparin dose did not result in significant increase in anti-Xa but further decreased the AT levels so we resumed the 14.000 IU dose. Throughout pregnancy D-Dimers were low (93-317  $\mu g/L$ ) and AT was 33-35% until the 28th week and raised after to 46-57%. A cesarean section was performed at the 39th week due labor beginning and abnormal fetus position. Prior to delivery, AT level was performed and it was 54%. She received Kybernin P (human antithrombin III) prevently at a dose of 2000IU iv, according to her body weight (50kg), two hours before delivery. She received Tinzaparin subcutaneous 8 hours later at the classical 4.500 IU dose. The next day AT level was 65%. Actually, she was managed with the same AT dose for four days plus Tinzaparin 4.500IU qd. After the fourth AT dose, the patient presents an allergic reaction because and AT was discontinued. It was replaced with LMWH only, at the prior dose of 14.000IU. She was discharged 6 days after delivery without any complications.

**Conclusions:** Natural anticoagulant AT deficiency is a severe situation during pregnancy because the risk of thromboembolic events. The management with human antithrombin before the delivery and the use of loweight heparin after the cesarean section offer a good issue.

#### P-0116 | POSTER | PRENATAL DIAGNOSIS

#### FETAL RETINOBLASTOMA - A CASE REPORT

Mario Krishna, Gatot A. Razak, Azen Salim University hospital Cipto Mangunkusumo

#### Abstract:

Retinoblastoma is the most common intraocular tumor in childhood. Globally the incidence of retinoblastoma is 1 in 16,000-18,000 births, but the number is not equally distributed around the world. Mortality rate of retinoblastoma is low in USA but higher in developing countries. Early diagnosis of retinoblastoma could help to plan treatment and improve prognosis. Early detection of retinoblastoma could be done prenatally through ultrasound and magnetic resonance imaging. However, both modalities are having challenges in detecting fetal retinoblastoma.

#### P-0117 | POSTER | PRETERM PREMATURE RUPTURE OF MEMBRANES

# DELAYED INTERVAL DELIVERY OF THE SECOND TWIN IN A WOMAN WITH MILDLY ALTERED MARKERS OF INFLAMMATION

<u>George Daskalakis,</u> M. Theodora, P. Antsaklis, M. Sindos, P. Fotinopoulos, I. Tsoumbou, G. Asimakopoulos, V. Maritsa, D. Loutradis

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#### Abstract:

Brief Introduction Delayed interval intertwin delivery rates are expected to rise during the next years as antenatal surveillance becomes more competent in predicting adverse maternal and neonatal outcomes. We present a case of delayed intertwin delivery after delivery of the first twin due to PPROM.

Materials and Methods: We report a case of delayed interval delivery of the second twin 34 days after the delivery of the first one. Clinical Case A 34-year old woman P1G2 was admitted in our high risk pregnancy Clinic at 23+4 weeks of gestation due to preterm premature rupture of the membranes (PPROM) of one of the dichorionic twins she had experienced 7 days ago. During physical examination she was normotensive, without fever and she had a Bishop score of 0. Laboratory examinations were obtained that revealed increased white blood cells (12,300/µl) and elevated CRP (40.98mg/L with upper normal laboratory limit of 1.0 mg/L), while vaginal and urinary cultures were normal. The patient was started on amoxicillin and metronidazole regimen three times daily for ten days and she was administered a course of betamethasone. Ultrasound examination revealed the presence of two embryos with positive cardiac function that weighted 535 and 606 grams respectively. Her cervical length was 28 mm. Three days later WBCs raised (14,200/μl) whereas CRP value declined at 2.90 mg/L. One week after admission (24+4) the patient experienced contractions and gave birth to a female infant weighing 550 g. Manual extraction of the placenta failed and we decided to ligate the umbilical cord just above the level of the external cervical os. She remained in the labour ward for close evaluation and as there were no signs of labour the woman opted for delayed delivery of the second twin following a detailed counselling. The next day the first twin died due to respiratory distress syndrome. Blood samples were obtained from the patient that revealed again raised WBCs (12,400/µl) and an increased CRP (13.14 mg/L). Five days later she had a new blood and urine examination along with urine cultures that revealed elevated WBCs (13.900/µl) an even higher CRP (31.78 mg/L) and the presence of enterobacteriae. The patient started cefuroxime 750mg three times a day for a period of seven days. The woman had close laboratory and clinical evaluation for signs of infection or fetal compromise. During the rest of her hospitalization her temperature remained constantly normal. A repeated dose of corticosteroids was administered to the patient during her 26th and 27th day of hospitalization (28th week of gestation). The second female fetus was finally delivered 34 days after the first one (29+2) with cesarean section due to an abnormal NST. The neonate weighed 1150 g and had an Apgar score of 7 at the first minute and 9 at five minutes. It was discharged from the neonatal ward 4 weeks later.

**Conclusions**: Close antenatal surveillance can lead to a successful outcome in cases of delayed interval delivery of the second twin, even in women with mildly elevated inflammation markers.

#### P-0118 | POSTER | PRETERM PREMATURE RUPTURE OF MEMBRANES

#### PRETERM PREMATURE RUPTURE OF MEMBRANES AND PROBIOTICS

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#### Abstract:

**Objective:** To examine the influence of vaginal probiotic administration as adjunct to standard antibiotic treatment on perinatal outcome in women with preterm premature rupture of the membranes (PPROM).

**Materials and methods:** This was a prospective randomized trial of cases with PPROM (24-34 weeks) that were admitted to our department between 2011 and 2015. 49 cases received vaginal probiotics for ten days in combination with antibiotic prophylaxis and were compared to 57 others that received only antibiotics for the same time period.

**Results:** The mean gestational age at birth (35.49 weeks vs 32.53 weeks), the mean duration of the latency period (5.60 weeks vs 2.48 weeks) and the mean birth-weight (2,439.08 g vs 2,004.81 g) were significantly higher in the study group in comparison to the controls. Moreover, the neonates of the study group had lower chance to enter the NICU or the Neonatal Special Care Unit, shorter total hospitalization time and lower need for oxygen administration and mechanical ventilation, as well as lower length of oxygen administration.

**Conclusions:** Vaginal probiotics in adjunct to antibiotics prophylaxis in women with PPROM prolonged the latency period and improved the perinatal outcome.

#### P-0119 | POSTER | PREVENTION OF PRETERM DELIVERY

# PREGNANCY OUTCOME AFTER TRANSVAGINAL CERCLAGE PROCEDURE. SINGLE CENTER STUDY

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#### Abstract:

**Brief Introduction:** Cervical incompetence is clinical diagnosis which can cause even 20% of miscarriages in second trimester of pregnancy. It might be treated in a different way: vaginal progesterone; cerclage; cervical pessary. There are three general recommendations to cerclage: history-indicated; ultrasound-indicated and rescue cerclage. Analyzing indications, erioperative procedures we may improve pregnancy outcome.

**Materials and Methods:** In the period between January 2013 and November 2016, 9486 women gave live birth at the Obstetrics and Perinatology Department in Cracow, Poland. In this period 51 transvaginal cerclage were placed. Indications, perioperative proceedings, pregnancy outcome were analyzed. Clinical Cases & Summary

**Results:** Before operation patients had genital tract screening for infection, positive cases had antibiotic therapy concordant with antibiogram. McDonald technique were used for insertion. After procedures each patient received tocolysis drug once. Patients with rescue cerclage had recommended bed rest. From 51 patients history-indicated cerclage were placed in 61%; ultrasound-indicated in 35%; rescue cerclage were placed in 4%. Labor after 37 weeks of gestations (wog) were in 77% cases, between 34 and 36 weeks 6 days 11% cases delivered, before 34 wog 7%, 5% miscarried.

#### P-0120 | POSTER | PREVENTION OF PRETERM DELIVERY

# THE RATE OF CHANGE IN CERVICAL LENGTH BETWEEN MID-TRIMESTER AND ADMISSION FOR PRETERM LABOR IS A PREDICTOR FOR SPONTANEOUS PRETERM BIRTH IN WOMEN WITH PRETERM LABOR

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**Purpose:** We aimed to determine whether rate of change in transvaginal cervical length (CL) at mid-trimester and at admission for preterm labor is associated with increased risk of spontaneous preterm delivery (SPTD) in women with preterm labor.

**Methods:** We retrospectively identified 79 singleton pregnant women admitted with preterm labor after routinely measuring CL at 20–23weeks at outpatient antenatal clinic. CL was also measured at admission by transvaginal ultrasonography. The rate of change in CL was defined as the change in mid-trimester and admission CL divided by time (millimeters per week). The primary outcome measure was SPTD at <34weeks' gestation. Logistic regression and ROC curves were used for analyses.

**Results:** The rate of SPTD before 34weeks was 20.2%. Multiple logistic regression analyses demonstrated that the rate of change in CL and CL at admission were significantly associated with SPTD <34weeks after adjusting for baseline covariates such as parity, use of antibiotics and corticosteroids. The best cut-off values for the prediction of SPTD at <34 weeks' gestation were -2.0mm/week for rate of change in CL (sensitivity 68.8%,specificity 87.3%) and 26mm for CL at admission (sensitivity 81.3%,specificity 68.3%). The combination of both parameters resulted in a significant increase in specificity compared with that for CL at admission alone, but a moderate decrease in sensitivity. There was no significant difference in the area under the ROC curves between the rate of change in CL and CL at admission.

**Conclusions:** A greater rate of change in CL between mid-trimester and admission is a good predictor of SPTD in women with preterm labor. However, compared with the CL at admission, it is no better at predicting SPTD. The specificity of CL at admission increased significantly when combined with the rate of change in CL.

#### P-0121 | POSTER | PREVENTION OF PRETERM DELIVERY

# PROINFLAMATORY PARAMETERS IN THE FIRST TRIMESTER AND PREGNANCY OUTCOME

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University of Novi Sad, Medical Faculty, Clinical Centre of Vojvodina

The <u>goal of our study</u> was to investigate proinflammatory state in the first trimester of pregnancy in order to explore if there were any differences between normal pregnancy and preterm delivery.

Methods: The study was conducted between January 2015 and May 2017 at the Department of Obstetrics and Gynecology, Clinical Centre of Vojvodina, Novi Sad. The study included 245 patients in the first trimester of pregnancy. All pregnancies were controlled and monitored until the end of pregnancy. The study group included 55 patients, and the control group of 190 pregnant women. Blood samples were taken between 10th and 14th week of gestation, in order to determine values of CRP, leukocytes and fibrinogen level. CRP was determined with immunoturbidimetric method, fibrinogen with coagulation method by Clauss and leukocytes with flow cytometry method.

**Results**: 55 patients had preterm delivery before 37. week of gestation (34 $\pm$ 1,54) and 190 patients had delivery after 37+1 (38 $\pm$ 1,32) week of gestation. There were statistically significant differences between values of CRP in these two groups (study group: 8,45 $\pm$ 3,15 vs. control group: 4,54 $\pm$ 0,33, p<0,021). There were no differences between values of fibrinogen (p=0,054) and values of leukocytes (p=0,065).

**Conclusion:** Measuring CRP values, like proinflammatory marker, already in the first trimester of pregnancy could be a promising marker in predicting preterm delivery.

**Keywords:** CRP, pregnancy, preterm delivery

#### P-0122 | POSTER | PREVENTION OF PRETERM DELIVERY

#### CERVICAL CERCLAGE FOR THE PREVENTION OF PRETERM BIRHT

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Abstract:

**OBJECTIVES:** the aim of the survey was to know the effectiveness of the procedure through perinatal outcomes.

**METHODS:** we conducted a descriptive and retrospective study based on 107 prophylactic (selectively due to at least one late-term miscarriage) and therapeutic (after catching changes in cervix before 23 weeks of pregnancy) cerclage cases which took place in Virgen de las Nieves Hospital in Granada between 2003 and 2013. Maternal, delivery and newborn variables were analyzed.

**RESULTS:** the mean age of patients was 31±5 years old. Regarding to the relevant obstetric and gynaecological history:26,2% had a previous first trimester miscarriage,8,4% had ≥2first trimester miscarriages,48,6% had a late-term miscarriage (12-22 weeks of pregnancy or fetus<500gr),15,9% had ≥2late-term miscarriages,29,9% had a early delivery and 1,9% had two early deliveries. Mean gestational age of patients at the moment of cerclage application was 14±2weeks(82,2% prophylactic and 10,3% therapeutic).Complications associated with cerclage were:5,6% miscarriage,28,1% preterm labor,1,9% preterm labor and preterm premature rupture of membranes. Age pregnancy range labor goes between 18 and 41 weeks (36±5 weeks mean age).91% had clear amniotic fluid,86,9% cephalic presentation,28,1% C-section birth,63,6% spontaneous labor and 8,4% instrumental or assisted delivery.15% had a weight <2500 g,8,4% Apgar score at 1′<5,11,2% Apgar score at 5′<7 and 11,2% umbilical artery pH<7,20.

**CONCLUSION:** Using cerclage on the study population shows less successful results than results obtained from systematic reviews(Alfirevic 2017).Our study shows greater number of preterm birth (28,1% against 17%).We must also take account that our therapeutic indications are less strict as we carry out cervical cerclage only on late intrauterine fetal death. Despite that introducing better prognosis clinical cases, we are forced to go along with this due to an improved results abcense.

#### P-0123 | POSTER | PREVENTION OF PRETERM DELIVERY

#### CORRELATION BETWEEN CERVICAL INFECTION AND PRETERM LABOR

<u>Larisa Mešić Đogić</u>, Đogić H.; Hodžić E.; Kovač R.;Hadžić E. *General Hospital Tešanj* 

Abstract

**Aim** To investigate a correlation between cervical canal infection and imminent preterm labor and to identify most frequent pathogens.

**Methods** A prospective study was conducted in obstetrics/gynecology departments of Health Center and the University Clinical Center Tuzla, and General Hospital Tešanj (Bosnia and Herzegovina, B&H) between October 2013 and May 2014. An examined group included 50 healthy pregnant women with singleton pregnancy of the gestation age between the 28th and 37th week, with cervical changes that are related to imminent preterm labor. Changes were detected by ultrasound biometry of cervix and modified Bishop score. A control group included 30 healthy pregnant women with singleton pregnancy of the gestation age between the 28th and 37th week of pregnancy without signs of imminent preterm labor. Cervical mucus was microbiologically analyzed for identification of pathogens.

**Results** The infection in cervical canal was proven in 35 (70%) examinees and four (13%) patients from the control group (p=0.015). In seven (20%) cases each Ureaplasma and Mycoplasma were detected followed by E. coli in five (14%) cases (p=0.001).

**Conclusion** Cervical canal infection is associated with changes on cervix and premature rupture of fetal membranes, i.e. preterm labor and imminent preterm labor. Screening for infection before pregnancy should be the main task of family doctors as well as gynecologists.

**Key words:** uterine cervicitis, premature birth, pregnancy complication

#### P-0124 | POSTER | PREVENTION OF PRETERM DELIVERY

# PARTIAL LIGHT DEPRIVATION IN PREVENTION OF THREATENING PRETERM LABOR AND ABORTION

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#### Abstract:

The aim of the study is development of method for the prevention of threatening preterm labor and abortion with the use of partial light deprivation with polycarbonate lenses. 184 nulliparous women with the threat of pregnancy loss aged 18-27 years were examined at the gestational age of 15-22 weeks: 56 women, who had partial light deprivation and standard therapy (group I); 58 women received only standard therapy (group II).

In women of the I clinical group, partial light deprivation in a natural light with optical lenses with a photochromic coating was performed with standard therapy (vaginal micronized progesterone 400 mg/day, folic acid 400 mg/day). The use of glasses with light-protective lenses was carried out daily in conditions of staying in the open sun for at least 30 days from May to October in women of 15-22 weeks of pregnancy. Women of the II clinical group received only standard therapy.

The study of hormonal status (the level of progesterone, luteinizing and follicle-stimulating hormones) was performed. To assess the secretion of melatonin, urine of pregnant women was collected twice (at 8 am and 8 pm) and analyzed by ELISA BUHLMANN, Germany, the level of its main metabolite of 6-sulfatoxymeelatonin was determined by the method of enzyme immunoassay.

The modulating effect of light deprivation on melatonin metabolism was revealed when using polycarbonate lenses, which was expressed by a statistically significant increase by 2.5 times in the level of 6-sulphatoxymelatonin in women's morning urine, and an increase in the level of progesterone by 40.21% and decrease in the level of gonadotropic hormones (luteinizing hormone - by 39.26% and follicle-stimulating hormone - by 36.75%). Frequency of threatening pregnancy loss in I clinical group was 1.9 times lower compared to group II.

#### P-0125 | POSTER | PREVENTION OF PRETERM DELIVERY

# INCIDENCE AND PERINATAL OUTCOME OF PRETERM BIRTHS IN GROCKA, BELGRADE

<u>Sandra Živulović</u>, Nikola Indjic, Vesna Zarubica-Savkovic Primary Health Care Center Grocka, Belgrade, Serbia

#### Abstract:

**Objectives:** The aim of this paper was to show the incidence and perinatal outcome of preterm births at a single primary health care facility.

**Methods**: This retrospective study analyzed preterm births at the Primary Health Care Center Grocka from January 2014 to December 2016.

**Results**: During the analyzed period, the incidence of preterm birth (PTB) was 3.55% (12/338). The highest incidence (5.61%) was observed among patients aged 26-30, while the lowest was in the 31-35 age group (1.09%). The proportion of multiple pregnancies in total number of PTBs was 16.67% (n=2). There were no extremely PTBs. Preterm premature rupture of membranes (PPROM) was the cause of all early preterm births and their incidence was 41.67% (n=5). The average newborn body mass was 1,362.30±317.68 g (1,070-1,850); and the mean Apgar score (AS) was 6.50±1.05 (5-8) and 7.17±1.47 (5-9) at one-minute and five-minutes, respectively. There was just a single moderate PTB accounting for 8.33% of all PTBs. Newborn body mass was 1100 g while AS was 7 and 8 at one- and five-minutes, respectively. The incidence of late premature births was 50% (n=6). The average newborn body mass was 2,580.00±852.64 g (1,450-1,850); and the mean AS was 8.14±0.90 (7-9) and 9.14±0.90 (8-10) at one-minute and five-minutes, respectively. There was no perinatal mortality.

**Conclusions**: Perinatal outcome of preterm births depends on gestational week at delivery and measures of prevention administered to decrease their incidence.

#### P-0126 | POSTER | PREVENTION OF PRETERM DELIVERY

# PREVENTION OF PRETERM DELIVERY WITH DABROSTONE VERSUS TREATMENT WITH MAGNESIUM

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University clinic of Gynecology and obstetrics, Skopje

#### Abstract:

**Objectivies:** The aim is to detrmine treatment with tabl Dabrostone  $10mg\ 3x1$  for prevention of preterm delivery versus treatment with tabl. Magnesium a  $300mg\ 2x1$ .

**Material and Methods:** We included 50 patients with simptoms of preterm delivery ( short cervix and NST trace). The patients took tabl.Dabrostone a 10mg 3x1. For control groop we took 20 patients with tabl. Magnesium a 300mg 2x1. We followed them on 3 weeks until 34 week of gestation with ultrasound Voluson E8 and NST trace. We excluded patients with vaginal infection with pH stick.

**Results:** From 50 patients only at 5 of them (10%) delivered pretermly before 34 week of gestation. The rest of them delivered from 35-37 week of gestation. At control groop from 20 patients, 5 of them (25%) delivered before 34 week of gestation.

**Discussion:** The treatment with tabl. Dabrostone is more efficient for prevention of preterm delivery.

#### P-0127 | POSTER | PREVENTION OF PRETERM DELIVERY

# CLINICAL PARAMETERS AS RISC FACTORS IN PATIENTS WITH RECURRENT SPONTANEOUS ABORTIONS

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#### Abstract:

Aim od study: was to determine the risk factors for pregnancy follow up and a decision for a mode of delivery in a selected group of patients with recurrent spontaneous abortions. Material and methods: Prospective study, consisted of 55 pregnant women (25 studied pregnant women with recurrent spontaneous miscarriages and 30 healthy women - control group). The clinical parameters studied were maternal age, weight, comorbidities and pregnancy outcomes, as well as the time and the way of deliveries and newborn conditions. Results: The average age of pregnant women in the study group was 30.88 ± 7.05 years, and in the control group the average age of pregnant women was 28,67 ± 5,37 years. In the study group of pregnant women in 2 patients (8%), pregnancy ended with miscarriage. Preterm deliveries in the study group occurred in period between 32 and 36.6 WG (week of gestation) and in that (14/25) pregnant women, or in 56%, term deliveries (37+0-42 WG) were at (9/25), or in 36% women who delivered. In the control group all pregnant women delivered in term (38-40 WG). In the study group vaginal delivery was in 7 (28%) of pregnant women, of which prematurely 1 (4%) of pregnant women and in period 6 (86%). Caesarean section was performed in 16 women (64%) of the study group, of which 13 was preterm (81%) and in term 3 (19%) women. Vaginal deliveries in the control group completed at (25/30) or 83,3% pregnant women. In the control group 16,7% of pregnant women (5/30) delivered by Cesarean section. In the study group was (7/25) or 28% obese pregnant women. In the control group wasn't obese pregnant women. In the obese patients, the pregnancies were completed in an average of 33.00±6.38 gestational weeks. The group of patients with comorbidities and whose body mass index was 29.55±5.4 completed their pregnancies in an average of 34.09±5.38 gestational weeks.

**Conclusion:** of this study indicates that pregnancies in women with recurrent spontaneous abortions, in obese women and patients with comorbidities are more likely to end prematurely and by Caesarean section. Maternal age, weight, comorbidities and pregnancy outcomes as well as the time and the way of previous deliveries and newborn conditions are the most important parameters in predicting the risk of Cesarean delivery and preterm labor. A predictive model using these parameters provides useful information in the decision-making process regarding the mode of delivery.

**Keywords:** recurrent spontaneous abortion, comorbidities, obesity, delivery

#### P-0128 | POSTER | PREVENTION OF PRETERM DELIVERY

# THE COURSE AND OUTCOMES OF PREGNANCY IN WOMEN WITH UTERINE FIBROIDS TREATED WITH THERAPY HAS ULIPRISTAL ACETATE

<u>Irina Ignatko, Kuznetsov, Anton S</u> *Sechenov First Moscow state autonomous medical university* 

#### Abstract:

Ulipristal acetate (UPA) is used for the preparation of patients with uterine fibroids to surgery. UPA is a selective modulator of progesterone receptors, characterized by a partial tissue-specific antiprogesterone effect. The interaction of UPA with estrogen is causing amenorrhea or a decrease in the intensity of bleeding is already the 10th day and the reduction of pain, which is important in symptomatic fibroids within. The appointment of the UPA at the dosage of 5 mg/day for 3 months to reduce the amount of large fibroids according to the literature on average by 45-50%. However, there is the insufficient data on the peculiarities of pregnancy and birth outcomes in patients treated by selective modulators progesterone receptors with/without subsequent myomectomy. The aim of our study was to evaluate the characteristics of the course and outcomes of pregnancy in women with uterine myoma, receiving the therapy by ulipristal acetate with or without subsequent myomectomy. We carried out a comprehensive prospective survey of 23 of women with uterine fibroids or after the myomectomy, held a consultative examination and delivery in the obstetrics department of the Yudin Moscow clinical hospital. It is shown that previous treatment with UPA with/without conservative myomectomy, contributes to the favorable course of pregnancy and delivery in women with uterine fibroids.

The average age of pregnant women was 35.2±2.34 years, with individual variations from 29 to 43 years. It should be noted that all these patients before pregnancy received therapy with UPA in a dose of 5 mg/day for 3 months, and 6 (26.1%) of them with a repeated course of 3 months (total 6 months). The size of myoma nodes in the appointment of the UPA ranged from 4.6 to 7.5 cm in diameter, belonged mainly to the 2-5 type. In 17 (73.9%) of women uterine fibroids were symptomatic and were accompanied by AMK and chronic iron deficiency anemia. 19 (82.6%) women was carried out in a subsequent myomectomy, in 3 (15,8%) of them – with the opening of the uterine cavity. All patients had positive result of treatment: in 4 (17,4%) - significant reduction in the size of the nodes (46-63%), all – cessation of AMK, with additional therapy with iron supplementation, prior to pregnancy have all been normalized the level of hemoglobin and serum iron. In 3 (13,04%) women (after UPA therapy and myomectomy) the pregnancy is the result of IVF. The average number of nulliparous amounted to was 21.74% (5 women). Avtomobilnyj was 18 (78,26%), 6 (33,3%) - aged primiparas and 12 (66,7%) who already had children. Features of obstetric history in avtomobilnyh were characterized by the presence of induced abortions (one to three) in 44.4%, the presence of spontaneous miscarriage before 12 weeks - in 22.2% of pregnant women, very early preterm birth (multiparous) - 11.11%. In the study of somatic status of women revealed the presence of extragenital pathology 50.0% (9 patients).

Among the complications were: 60.97% (14) – long-term threat of abortion at different stages; retrochorial hematoma – 13.04% (3); 8.7% (2) – vomiting of pregnant moderate and severe; gestational hypertension in 4 (17.4%); moderate preeclampsia and 4 (17.4%); syndrome of delayed fetal growth, 4 (17.4%); fetal hypoxia in 3 (13.04%) patients. Signs of failure of the uterine scar after myomectomy have not been identified in any observation. When threatened abortion in I and II trimesters in 15 (65.2 percent) of pregnant women had used progestins in recommended dosages to 20-24 weeks. In 2 (8.7 percent) of pregnant women were formed isthmic-cervical insufficiency in the timing from 18 to 22 weeks, which required for its correction obstetric pessary. 19 (82,6%) patients were delivered by cesarean section (all of

them because of the scar on the uterus after conservative myomectomy), 4 (17.4%) of patients vaginally (without prior myomectomy). All newborns were born in good condition, full term, average weight of  $3145\pm235$  g, height  $53\pm1.2$  cm, average Apgar score of  $7.8\pm1.8$  b for 1 min,  $8.6\pm1.2$  b for 5 min. 3 (13.04%) newborns was born with small body mass for gestational age. Thus, previous treatment with UPA with/without conservative myomectomy, contributes to the favorable course of pregnancy and delivery in women with uterine fibroids.

#### P-0129 | POSTER | PREVENTION OF PRETERM DELIVERY

#### CERVICAL CERCLAGE VS PROGESTERONE IN PRETERM DELIVERY – CASE REPORT

<u>Danko Natalic</u>, Vojislav Miketic, Snezana Raspopovic, Azis Haliti *GynObs Clinic, Clinical Centre of Montenegro* 

#### Abstract:

Preterm delivery remains the major problem in perinatology, with incidence of 1:10 born infants. The preterm delivery is responsible for one third of all infant deaths. Survivors may have breathing problems, feeding difficulties, cerebral palsy, vision problems and hearing impairment... There are many attempts to lower the incidence of preterm delivery, especially in group of women with singleton pregnancy, short cervix in second trimester and previous preterm birth. Cervical cerclage or vaginal progesterone are equally efficacious in the prevention of preterm birth in this group. Selection of optimal treatment needs to consider adverse effects and patient and clinician preferences. We described a case of 32 years old patient (G4P2A1) with complicated history: first pregnancy ended in 27th week of gestation, a preterm newborn survived but with moderate neurological disability and vision problems. The second pregnancy was supported with continous progesterone therapy, bacterial vaginosis screening and bed rest, cerclage performed at 14th week of gestation, and recerclage at 24th week, because of contractions and loosening of previous cerclage tape. Soon after that, preterm delivery happened, the newborn did not survive. All analyses performed were negative for bacterial infection without pointing to problem. After that, the patient had one misscarriage 8 weeks old. The next, fourth pregnancy, few years later, we performed genetical testing for thrombophylia which were positive, so low mollecular heparine was included in therapy. Considering second pregnancy and attempts with cervical cerclage, despite of short, lacerated and dillated cervix at mid trimester, we decided not to apply cerclage, continuing with intramuscular Progesterone. The symptoms of preterm delivery started at 28th gestational week, when corticosteroids for arteficial fetal lung maturation were administered. The delivery occured at 31st week of gestation and female newborn spent first 4 weeks of life in NICU, without health impairment, discharged in good condition.

#### P-0130 | POSTER | PUBLIC HEALTH

# THE EFFECT OF PRE-PREGNANCY BODY MASS INDEX ON PERINATAL OUTCOMES IN NORMAL WEIGHT WOMEN

<u>Michinori Mayama</u>, Eiji Nomura, Takuma Yamada, Takehiko Takeda, Kaname Uno, Sho Tano, Mayu Ukai, Teppei Suzuki, Yasuyuki Kishigami, Hidenori Oguchi *Oji General Hospital / Department of Obstetrics and Gynecology* 

#### Abstract:

**Objectives:** Obesity and underweight women have higher risks of perinatal complications compared with normal weight women. However, the effect of pre-pregnancy body mass index (BMI) in normal weight women remains unclear. This study aimed to examine the effect of pre-pregnancy BMI on perinatal outcomes in normal weight women.

**Methods:** We retrospectively analyzed the perinatal outcomes in patients whose pre-pregnancy BMI were within 18.5–24.9. A total of 2,131 women who delivered at TOYOTA Memorial Hospital between January 2010 and December 2016 were included in this study. The women whose pregnancy resulted in stillbirth and abortion were excluded. We divided the women into three groups according to their pre-pregnancy BMI: 18.5–20.0, 20.1–22.5, and 22.6–24.9. The effects of pre-pregnancy BMI on the incidence of gestational diabetes (GDM), preeclampsia, preterm delivery, small for gestational age (SGA), large for gestational age (LGA) were analyzed with logistic regression analysis. Age, gestational weight gain, infertility treatment, and primipara were included as independent variables.

**Results**: Each BMI group (18.5-20.0, 20.1-22.5, and 22.6-24.9) had 758, 928, and 445 women. The perinatal outcomes in each BMI category were GDM: 4.1%, 6.0%, 10.3%, p<0.001; preeclampsia: 6.1%, 5.7%, 6.7%, p = 0.755; preterm labor: 18.3%, 15.7%, 13.5%, p = 0.077; SGA: 14.8%, 12.5%, 13.0%, p = 0.381; LGA: 8.3%, 10.9%, 13.7%, p = 0.012. The odds ratio and 95% confidence interval of BMI 20.1-22.5 and 22.6-24.9 were GDM: 1.45 (0.92-2.28) and 2.66 (1.66-4.28), preclampsia: 0.94 (0.62-1.41) and 1.11 (0.69-1.79), preterm labor: 0.85 (0.66-1.10) and 0.70 (0.50-0.98), SGA: 0.84 (0.63-1.11) and 0.87 (0.62-1.23), LGA: 1.33 (0.95-1.86) and 1.75 (1.20-2.54).

**Conclusions:** Even in normal weight women, pre-pregnancy BMI was significantly related with perinatal outcomes. While the risk of GDM and LGA was higher in the higher BMI group, the risk of preterm labor was higher in the lower BMI group. These relationships were still significant after the adjustment of age, infertility treatment, gestational weight gain, and primipara. Therefore, proper weight gain during pregnancy might be different according to pre-pregnancy BMI even in normal pregnant women.

#### P-0131 | POSTER | PUBLIC HEALTH

# PATIENT WITH BERNARD -SOULIER SYNDROME, TWO PREGNANCIES WITH DIFFERENT EVOLUTION AND MEDICAL CARE

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#### Abstract:

Bernard–Soulier syndrome (BSS), also called hemorrhagiparous thrombocytic dystrophy, is a rare <u>autosomal recessive coagulopathy</u> that causes a deficiency of <u>glycoprotein Ib</u>. The incidence of BSS is estimated to be less than 1 case per million, based on cases reported from Europe, North America, and Japan. BSS is a <u>giant platelet disorder</u>, meaning that it is characterized by abnormally large platelets. As with other congenital platelet function defects, BSS often presents as a <u>bleeding disorder</u> with symptoms of: <u>perioperative</u> and postoperative bleeding, bleeding gums, easy <u>bruising</u>, heavy menstrual periods, <u>epistaxis</u>, abnormally prolonged bleeding from small injuries.

Four different features of BSS may contribute to the hemorrhagic diathesis: thrombocytopenia, abnormal platelet interaction with von Willebrand factor (vWF), abnormal platelet interaction with thrombin, and abnormal platelet coagulant activity. Because of its rarity, there exist only a few and divergent reports on the value of obstetric management of this disorder. Therefore, our aim was to evaluate a pregnant woman with Bernard-Soulier Syndrome with regard to the obstetric and anesthetic management, and complications influencing clinical outcome.

We present here a case of a 25 years pregnant woman, diagnosed with Bernard Soulier syndrome in childhood, at 10 years old. She had 2 pregnancies and the evolution was different from the point of view of the hematological condition and medical management. First pregnancy was two years ago, when she had 5000 platelets/mm³ at 6 weeks of gestation, without bleeding symptoms. From 38 weeks were administrated 1 unit cytapheresis at 3 days, or 2 units of platelets mass at 3 days, the results being much better after cytapheresis. She gave birth by C-section to a 3000 grams healthy baby girl, with normal count of platelets. The platelets count was 80000 platelets/mm³ at 7 days after C-section and 23000 platelets/mm³ after another 5 weeks. For the second pregnancy, when she was diagnosed at 10 weeks of gestation, the platelets were 70000/ mm³, at 28 weeks - 27000/ mm³, at 34 weeks - 125000 mm³, but with moderate platelets anisocytosis, the normal platelets form being 26000/mm³.

The number of platelets was constant until she was operated at 40 weeks gestation, and was extracted a 2800 gr. baby boy. In surgery and after it, didn't appear any homeostasis difficulties, no need for cytapheresis. The first platelets count for the baby was with 40000/mm³ and the blood smear showed the anisocytosis for red blood cells, giant platelets 15000/ mm³ and anisocytosis for platelets too, confirming BSS for the baby too.

We concluded that pregnant women with BSS should be observed at an appropriate centre using a multidisciplinary approach. In our case, the hematological evolution for the mother was better in second gestation, but the second baby has the mother's diagnosis and he needed different care.

#### P-0132 | POSTER | PUBLIC HEALTH

HOW OSTEOPATHY COULD HELP OBSTETRICS IN DIAGNOSIS AND THERAPY. PRELIMINARY REPORT ABOUT SAFETY AND EFFICACY OF OSTEOPATHY IN AN OBSTETRICS DEPARTMENT IN ITALY

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#### Abstract:

**Background:** Osteopathy is present in a large number of hospitals in Italy, firstly in pediatric departments. It is mainly deals with musculo-skeletal imbalances, but osteopathy states to have a role in improving general health. Few studies about safety and efficacy of osteopathic manipulative treatment (OMT) in Obstetrics have been produced.

**Objectives:** Our long-term study, of which this report is a preliminary communication, is aimed at investigating the effects of OMT during the third trimester of pregnancy on labour and delivery and on the peri-partum parameters of fetal well-being and it is aimed at verifying the prognostic value of a diagnostic dynamic test.

**Methods:** From July 2015, our cross-sectional and analytical controlled study enrolled women, with low-risk singleton pregnancy, referring to the hospitals of the Second District of Liguria (Savona and Pietra Ligure - Italy). The OMT and the diagnostic test were performed at the obstetrics-osteopathic practice of the hospitals, approved by the local Healthcare Director. Nulliparous patients who agreed to submit to OMT were treated at the beginning, mid and late (36-38 weeks) third trimester of pregnancy; patients who were not interested in OMT entered the control group.

The values of the transverse diameter of the Michaelis' sacral rhomboid area (PSIS) in changing three different positions (1- vertical kneeling position; 2- hand-to-knee position; 3- kneeling squat position) and their differences were the diagnostic predictive tool.

**Results:** Obstetrical outcomes considered for this study are: normal deliveries (ND), operative deliveries (OD: kiwi and/or >3 Kristeller manouvres), cesarean sections (CS), pharmacological inductions of labour for pregnancy beyond the term, demands for analgesia, use of oxytocin in the first stage of labour, episiotomy rate, presence of meconium-stained fluid, neonatal APGAR score, PROM. Statistical analysis of clinical outcomes: chi-square test and risk ratio (RR) with 95% confidence interval (95%CI). Apgar score was analyzed by Mann-Whitney U test. T-test and area under the ROC curve ( $\theta$  value) for the transverse sacral diameter were done. Significance from p= 0.05.

The low-risk nulliparae in labour were in total 327: 166 for the OMT group and 161 for the control group. The deliveries were between October 2015 and December 2016. It was shown to be significant (OMT vs control): an overall lower rate of dystocia (CS+OD: 19/166 - 11.4% vs 47/161 - 29.1%: p=0.00006; RR 0.39 and 95%CI 0.24-0.63), a lower CS rate during labour (7.8% vs 13.1%: p = 0.05; RR 0.52 and 95%CI 0.27-1.003), a lower OD rate (3.6% vs 16.1%: p=0.00006, RR 0.21 and 95%CI 0.08-0.49) and a lower use of episiotomy (9.8% vs 22.8%: p=0.002; RR 0.42 and 95%CI 0.24-0.75). Amniotic fluid was less frequently meconium-stained (13.2% vs 23.6%: p = 0.01; RR 0.56 and 95%CI 0.34-0.91). The rate of pregnancy beyond the term, treated with pharmacological induction, was not significantly different (13.2% vs. 19.2%: p = 0.1) but in the OMT group CS+OD was less effective frequency (18.1% vs 54.8%: p = 0.008; RR 0.33 and 95%CI 0.12-0.85).

The transverse diameter of Michaelis' losanga adapts in changing positions: 364 triplets of data (ND= 283; CS+OP: 81) are summarized as follow.

ND PSIS1: mm. 125,5 $\pm$ 13,8 and CS+OD PSIS1: mm. 127,7 $\pm$ 16,9 (t-test and ROC: not significant - ns). ND PSIS2: mm. 133,1 $\pm$ 14,1 and CS+OD PSIS2: mm. 130,1 $\pm$ 17,6 (t-test and ROC: ns). ND PSIS3: mm. 132,9 $\pm$ 15,1 and CS+OD PSIS3: mm. 127,7 $\pm$ 18,1 (t-test and ROC: ns).

ND PSIS2-1: mm. 8,3 $\pm$ 3,8 and CS+OD PSIS2-1: mm. 2,5 $\pm$ 2,1 (t-test p< 0,0001; ROC  $\theta$  value: 0,95 and 95%CI 0,92-0,97). ND PSIS3-1: mm. 7,3 $\pm$ 5,9; CS+OD PSIS3-1: mm. 1,1 $\pm$ 4,3 (t-test p< 0,0001; ROC  $\theta$  value: 0,81 and 95%CI 0,76-0,86 ). ND PSIS2-3: mm. 1,1 $\pm$ 4,8; CS+OD PSIS2-3: mm. 1,4 $\pm$ 3,7 (t-test and ROC: ns).

A PSIS2-1 (difference between hand-to-knee position and vertical position) cut-off value of 3,0 mm. shows a True Positive Rate: 0,98; a True Negative Rate: 0,81; False Positive Rate 0,18; False Negative Rate: 0,01.

**Conclusion:** Preliminary data from our experience confirm that osteopathic treatment during the third trimester of pregnancy is safe for both mother and baby, OMT seems to be able to support birth physiology and reduce dystocia. These outcomes potentially result in fewer days of hospitalization and a reduction in risk factors for maternal and neonatal disease. Osteopathy seems also to support midwives and obstetricians in the diagnosis of dystocia by its dynamic approach to external pelvimetry.

WHO recommends collaboration and integration between traditional and conventional approaches in medicine. Midwives and osteopaths together could improve the quality of childbirth and delivery, thus affecting the well-being of the infants in the short and long term as well as women's health.

**Keywords:** low-risk pregnancy, osteopathy, cesarean section, dystocia, external pelvimetry.

#### P-0133 | POSTER | PUBLIC HEALTH

# MATERNAL ANEMIA, HEALTH STATUS, LIFESTYLE AME SOCIODEMOGRAPHIC FACTORS

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**Introduction.** The body transformations of pregnancy promote physiological imbalance and significant changes women's health status, such as maternal anemia. These dysfunctions may cause preventable undesired outcomes to the maternal-infant binomial. The objective to estimate the association between maternal anemia and sociodemographic factors, health status and lifestyle characteristics.

**Methods.** We used baseline data from a prospective cohort of pregnant women who underwent prenatal care at Family Health Units in the city of Santo Antônio de Jesus, Bahia, Brazil. Diagnostic criteria for anemia in pregnant women were hemoglobin levels below 11g / dl. We sub classified anemia into iron deficiency anemia and chronic disease anemia. Data collection was performed in two stages: 1) applying a form to obtain sociodemographic, reproductive, and gestational information, and; 2) blood samples collection for hematological indicators, and oral examination. We estimated mean difference between groups using chi-square test (p < 0.05). This study was approved by the ethics committee from State University of Feira de Santana, Bahia.

**Results.** The final sample comprised 734 pregnant women. The mean age was 25.53 years ( $\pm$  5.91 SD), and the frequency of maternal anemia was 21.25%. The frequency of iron deficiency anemia was 5.04% and 10.89% of the pregnant women presented iron deficiency only (without anemia). Regarding sociodemographic variables, there was no statistically significant difference between the comparison groups (pregnant women with anemia vs pregnant women without anemia). Regarding health and lifestyle characteristics, it was observed that urinary infection (p=0,04), anemia in the previous gestation (p=0,02), and the beginning of the prenatal follow-up after the third month of pregnancy (p=,0,03) and iron deficiency (p=0,02) were statistically different between groups.

**Conclusion.** Hematological dysfunctions, such as anemia, can negatively impact mothers and newborns lives. Data from this study show us that maternal anemia was associated with maternal lifestyle and health status.

Keywords. Anemia; Pregnant Women; Cohort.

#### P-0134 | POSTER | PUBLIC HEALTH

### AMNIOTIC FLUID INDEX AND MATERNAL PLASMA VOLUME SHIFTS DURING 50 MINUTES OF MATERNAL IMMERSION IN DEEP THERMO-NEUTRAL WATER

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Abstract:

**Background:** Amniotic fluid volume (AFV) is a vital sign of fetal well-being. Maternal plasma volume expansion has been demonstrated to have a role in relieving oligohydramnios. Maternal venous fluid infusion, maternal hydration and maternal water immersion can influence both maternal plasma volume and amniotic fluid volume. A previous study showed that water immersion during the third-trimester of pregnancy is able to maintain higher amniotic fluid index (AFI) levels.

**Objectives:** The present study is aimed at exploring the acute shifts in amniotic fluid index (AFI), maternal haematocrit (Ht) and haemoglobin (Hb) levels, maternal plasma volume and plasma and urine osmolality during deep water immersion and it is aimed at evaluating the relationship between amniotic fluid and maternal plasma changes in healthy singleton pregnancies.

**Methods:** 23 volunteers with low-risk singleton pregnancy were recruited. Ultrasound evaluation of the amniotic fluid index (AFI) was provided and urine samples were received before and after 50 minutes of maternal water immersion in deep (200 cm.) thermo-neutral (29°±1°C) water, performing a swimming-program for pregnant women. Before water immersion (0, basal) plasma sample was collected through venous catheter positioned in the cubital vein; plasma sample was collected at 10° minute (1st sample) and at 45°. minute (2nd sample) of water immersion. Urine specific gravity, haematocrit and haemoglobin levels, plasma glucose, sodium, potassium, albumin, total protein and blood urea nitrogen were determined in all samples. Plasma volume change, plasma osmolality as well as percentage (%x) changes of biochemical analytes were calculated from the obtained data. Statistical analysis with paired t-test and correlation Pearson's test; significance from p=0,05.

Results: 428 sonographic measurements of deepest amniotic pocket and 552 biochemical evaluations were performed. Complete data from 20 healthy pregnant women were statistically analysed. AFI increased from mm. 150,5±37,5 (mean±SD) to mm. 182,2±38,2 (p< 0,0001) after 50 minutes water immersion period. Sodium slightly raised in the first 10 minutes from 140,3±3,7 to 141,8±4,5 (mEq/L) (p= 0,05). Haematocrit, haemoglobin, glucose, blood urea nitrogen and albumin decreased in the first 10 minutes and remained lower to the end of the water immersion period. Haematocrit: (basal - first - second sample) 34,4±2,3 - 33,5±2,8 - $33,1\pm2,4$  (p=0,002); haemoglobin (g/dL):  $11,8\pm0,8-11,5\pm1,0-11,3\pm0,7$  (p=0,002); glucose (mg/dL): 82,9±13,1 - 73,0±10,3 - 66,8±7,8 (p<0,001); blood urea nitrogen (mg/dL): 19,1±4,6 - $18,4\pm4,9 - 17,8\pm5,2$  (p=0,02); albumin (g/dL):  $3,52\pm0,2 - 3,4\pm3,1 - 3,4\pm3,0$  (p=0,01). Potassium level, plasma osmolality and total protein didn't alter during water immersion. Estimated maternal plasma volume raised from basal 2833,9±340,2 mL to 2869,7±338,6 (p=0,009) and 2889,8±331,9 (p=0,002) after 50' water immersion, with a 106,3±8,2% shift in plasma volume estimated by haematocrit and haemoglobin values. The amount of %AFI changes was significantly correlated to the %Ht changes (r = -0.44; p = 0.05), to the %Hb changes (r = -0.52; p = 0.05)p=0,01) and to the %plasma volume changes (r=0,54; p=0,01).

**Conclusion:** This study agrees with previous papers to state the rapid increase in plasma volume during maternal acute hydration and water immersion. Modulation in intramembranous absorption could be hypothesized to be the link between maternal plasma volume changes and amniotic fluid volume. Studies demonstrated that low maternal plasma volume expansion and high haematocrit and haemoglobin levels can be used to predict and monitor women at risk for preeclampsia. So, later immersion could be a harmless, available and pleasant way to prevent dehydration and low plasma volume expansion during pregnancy.

#### P-0135 | POSTER | PUBLIC HEALTH

# COMPARISON OF HIGH AND LOW DOSES OF OXYTOCIN INDUCTION IN NULLIPAROUS PREGNANT WOMEN

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#### Abstract:

Aim: To compare the obstetrical outcomes and maternal and neonatal adverse outcome associated with high and low doses of oxytocin protocol during labor induction Methods: This cross sectional study was performed through basic randomization at labor ward from January 2012 until May 2015. Out of a selected cohort involving 244 low risk term nulliparous pregnant women with a Bishop score 6 and higher having similar demographic variables, either high or low dose oxytocine were infused to 111 women and 110, respectively. Two groups were compared in terms of labor duration, type of delivery, birthweight, presence of meconium and nuchal cord, cord blood gas analysis, placental weight, maternal complications (postpartum bleeding, transfusion, puerperal fever, grades III–IV perineal lacerations and uterine rupture) and perinatal morbidity/mortality.

**Results:** Duration of phase II was significantly shorter (p=0.015) and passage of thick meconium was higher in high dose oxytocine regimen. No difference was detected in terms of the duration of phase I and phase III of labor, cesarean section rate nor were differences found in maternal and perinatal complications between the two groups(p>0.05).

**Conclusion:** High doses of oxytocin has been associated with shortening of labor, however meconium passage may be a subject of concern.

#### P-0136 | POSTER | PUBLIC HEALTH

#### CERVICAL ECTOPIC PREGNANCY

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#### Abstract:

Ectopic pregnancy is any pregnancy caused by implantation of the fertilized ovum in the cervical mucosa and the development of pregnancy in that unfavorable place. The prevalence of ectopic pregnancy ranges from 6 to 16%. Cervical ectopic pregnancy is an extremely rare phenomenon with an incidence of less than 0.1% of all CEP.

Early diagnosis and nonsurgical management is required in order to preserve fertility and helps in decreasing maternal mortality and morbidity.

We report two cases of cervical pregnancy and the challenges in the diagnosis and management are discussed. A 30-year-old primigravida referred from primary health care center as a case of missed abortion and presented with mild vaginal bleeding of 7 days duration following 9 weeks amenorrhea. Clinical examination revealed ballooning of cervix with partially open external os. Serum  $\beta$ -hCG level was 3992 mIU/ml at that point of time. Transvaginal ultrasound scan revealed empty uterine cavity, closed internal os and a heterogeneous space occupying lesion, cervix was very enlarged, spongy and filled with coagulum and material that looks like an ovular tissue. Provisional diagnosis of cervical pregnancy was made. She was treated with the combined administration of Mifepriston and Misoprostol orally followed by the minimal invasive procedure- curettage in view of intractable bleeding to save the patient life. Histopathology report confirmed the diagnosis. Patient was discharged and advised for weekly follow-up with serum  $\beta$ -hCG report. The patient resumed her normal periods after 2 months.

A 33-year-old, second gravida with previous lower segment Cesarean section, presented with painful abdomen and vaginal bleeding following 6 weeks of amenorrhea. The case was diagnosed as CEP by clinical examination, confirmed by transvaginal ultrasonography and subsequently managed by conservative medical treatment and curettage. Local examination revealed active bleeding from external cervical os. On gentle per vaginum examination, there was ballooning of cervix with a patulous external os. Transvaginal scan revealed empty uterine cavity with endometrial thickness 8 mm, product of conception in the cervical canal, gestational sac containing live embryo of 6 weeks gestational age. Both the ovaries and tubes were normal and there was no free fluid in pouch of Douglas. Serum  $\beta$ -hCG level was 15908mIU/ml at that point of time. Provisional diagnosis of cervical pregnancy was made. Mifepristone tbl. were given. Five days after induced abortion, curettage was made. Serum  $\beta$ -hCG level decreased. She was followed-up with serum  $\beta$ -hCG weekly and the level became normal within 5 weeks. Follow-up ultrasound revealed complete resolution. Histopathology report confirmed the diagnosis.

There is excellent evidence of efficacy up to 63 days of gestation using the regimens of 200 mg of Mifepristone orally followed by home administration of 400 - 800  $\mu$ g of buccal misoprostol in 24 to 72 h. Women then return 4 to 14 days later for a clinical evaluation to document complete abortion. Success rates for these regimens range from 95% to 98%, with failure due to ongoing pregnancy in approximately 1%.

#### P-0137 | POSTER | PUBLIC HEALTH

# PREVALENCE, CAUSES AND EVITABILITY OF PERINATAL MORTALITY IN A PUBLIC MATERNITY HOSPITAL IN THE SOUTH OF BRAZIL

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#### Abstract:

**Purpose** - Evaluate the prevalence, the causes and the evitability of perinatal mortality in a public maternity hospital in the south of Brazil.

**Methods** – Observational, descriptive, retrospective cohort, from 01/01/2011 to 31/12/2015 in a public maternity hospital in the south of Brazil. The data was collected from the medical records of the pregnant women from the 22nd week of gestation until the end of gestation that occurred stillbirth and from the charts of the neonates from birth to the 6th full day of life who died within this interval. Prevalence was calculated by the mortality coefficient, the causes of death by the Wigglesworth Classification and the evitability of the cases according to ICD – 10.

**Results:** It was concluded that the perinatal mortality coefficient was 13.2 / 1000 live births. From a total of 26632 born in the period, 334 medical records were analysed. The most observed causes of death according to the Expanded Wigglesworth Classification were antepartum fetal death in 182 cases (54.5%) followed by immaturity / prematurity death in 57 cases (17.1%). The most prevalent evitability, according to the International Classification of Diseases (ICD -10) was the reducible by adequate control in pregnancy in 234 cases (70%). The avoidable deaths were 89% and the not preventable was 11%.

**Conclusion**: The perinatal mortality rate was 13.2 / 1000 live births. According to the Wigglesworth Expanded Classification, the most commonly observed causes of death were antepartum fetal death in 182 cases (54.5%), followed by immaturity / prematurity in 57 cases (17.1%). The most observed evitability, according to ICD-10, was the reducible by adequate control in pregnancy in 234 cases (70%). Avoidable deaths were 89% and the not preventable were 11%.

**Keywords:** perinatal mortality.

#### P-0138 | POSTER | PUBLIC HEALTH

# ASSOCIATION BETWEEN MATERNAL CONSUMPTION OF ALCOHOL DURING PREGNANCY AND LOW BIRTH WEIGHT: A CASE-CONTROL STUDY IN BRAZIL

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**Background.** Low birth weight is a public health indicator that reflects maternal health conditions and the quality of healthcare delivered during pregnancy. Maternal lifestyle is one of the factors associated with low birth weight. Besides, alcohol consumption during pregnancy may interfere in fetal growth. This study aims to analyze the association between maternal consumption of alcohol during pregnancy and low birth weight in a region of low socioeconomic conditions in Brazil.

**Methods.** Case-control study conducted in two public hospitals from the Northeast of Brazil, including 1,612 mothers and their newborns. The group of cases was composed of 402 mothers with low birth weight newborns, and the control group was composed of 1,210 mothers with normal weight newborns ( $\geq$ 2,500 grams). Data were collected based on self-reported information by mothers and complemented by hospital records. Simple linear regression and logistic regression models were conducted.

**Results.** The majority of women were between 20 and 34 years old (65.3%), non-white (86.3%), married (81.5%), of low income (90.9%) and almost half of them had less than nine years of schooling. This study showed that half of the women consumed alcohol at least once in life and 12.5% of them continued to consume alcohol during pregnancy. The most consumed kind of beverage was beer (96%). The majority of women self-classified their alcohol consumption as rare (65.7%). However, in this study, 44.7% of the women were classified as having high consumption of alcohol (more than 40 grams of absolute alcohol per occasion). The high consumption was associated with LBW (OR *adjusted:* 2.10; CI 95%: 1.23; 3.58) and in this same group, the average weight reduction at birth was 115 grams (CI 95%: -348.52 to 118.41; p=0.33) compared to newborns of pregnant women who consumed less than 40 grams of alcohol per occasion.

**Conclusion.** Although no association between low and moderate alcohol consumptions and LBW has been found in this study, this does not mean that a secure dose of alcohol ingestion during pregnancy exists. Healthcare actions should be carried out with the intention of ceasing or at least reducing the consumption of alcohol by pregnant women.

#### P-0139 | POSTER | PUBLIC HEALTH

# EFFECT OF DIFFERENT ANTHROPOMETRIC FACTORS WEIGHT AND SIZE OF PREGNANT WOMEN ON FETAL GROWTH

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Abstract:

**Objactives:** The main aim of this research is the influence of different antropometrics factors of weight and height of pregnant women and fetal growth of term newborns.

**Methods:** The sample of the research was consisted of 21 404 pregnant women and their newborns from singleton term pregnancies. Mother BMI(body mass index) is calculated according to the next equation: BMI (kg/m2) = physical weight / physical height2. Birth weight lower that 10 percentile is evaluated as hypotrophy, higher that 10 percentile is evaluated as hypertrophy, while birth weight between those percentiles is evaluated as normal weight. The evaluation of fetal growth symmetry was done using PI (ponderal index). PI is calculated for each newborn according to the equation: PI (g/cm3) = birth weight (g) / birth height (cm3).

**Results:** The researched results showed statistically significant and positive dependence among tested variables (physical weight before pregnancy, physical weight of pregnant woman on the day of delivery, weight gain during the pregnancy, physical height of pregnant woman, BMI before pregnancy, BMI according to the category of WHO, BMI on the day of delivery, difference of BMI before pregnancy and on the day of delivery, relative change of BMI during pregnancy) according to tested evaluations of fetal growth (low birth growth, macrosomia, birth weight according to gestational age, gender and parity of mother, birth height, PI). Influence of physical height of pregnant woman and PI of newborns didn't show any statistical significance.

**Conclusions:** All tested anthropometric parameters regarding pregnant women's height and weight and tested factors of fetal growth of term newborns according to quantitative and qualitative determinants showed statistically significant dependence. Relative change of BMI during pregnancy by personal attention to each pregnant woman, today represent rational formula of evaluation of adequate weight increase, especially considering quality of fetal growth.

#### P-0140 | POSTER | PUBLIC HEALTH

# DIETARY HABITS AND THE VIEWS OF PREGNANT WOMEN ON THE USAGE OF SUPPLEMENTS

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#### Abstract:

Pregnancy is one of the most dietary demanding periods in a life of a woman. It is proven that insufficient intake of nutrients does not effect only the development of the fetus, but it can cause disturbances later in the life of the child. Dietary supplements can be a promising strategy for reducing the negative outcomes in pregnancies, as well as for improving nutritional and immunological status of pregnant women.

The aims of this study was to determine the differences in the quality of dietary habits, analyze the application of supplements in the diet of pregnant women and determine the necessity for educating pregnant women about the dietary habits and healthy life styles.

This study is conducted on 500 interviewees, which are classified by employment status, parity, age and level of education. Diet of actively employed pregnant women is healthier and it satisfies nutritional demands in relation to unemployed pregnant women. Diet of primiparas is healthier in relation to multiparas because they are more informed and educated about nutritional demands during pregnancy. Pregnant women with higher level of education have healhier dietary habits in relation to those with lower level of education. Majority of pregnant women in the study said that with healthy diet it is necessary to take vitamin and mineral supplements. Pregnant women under the age of 30 more often than the older ones used these supplements. Interviewees used the multivitamins the most and they said that consuming these supplements positively effects the development and the outcome of pregnancy. Pregnant women mostly are not familiar with the negative side effects of dietary supplements, and almost half of them considers that dietary supplements can not have negative effects on their health.

There is a need that healthcare workers educate the public, specially the consumers of supplements, which would contribute to adequate intake of such supplements and decrease in negative side efects and health issues caused by these supplements, specially among the pregnant women population.

### P-0141 | POSTER | PUBLIC HEALTH INTERPREGNANCY INTERVAL AND OBSTETRIC AND NEONATAL OUTCOME

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#### Abstract:

**Objective:**To examine the association between interpregnancy interval and maternal–neonate health when matching women to their successive pregnancies to control for differences in maternal risk factors and compare these results with traditional unmatched designs.

**Methods**:We conducted a retrospective cohort study of 15,205women with two to five deliveries between January 2003 and December 2015 involving all women with singleton pregnancies attended at Virgen de las Nieves University Hospital, Granada, Spain.We examined interpregnancy interval(0–5, 6–11, 12–17, 18–23, 24–59, and 60 months or greater) in relation to neonatal outcomes(preterm birth less than 37 weeks of gestation], low birth weight[less than 2,500 g]), Apgar score,umbilical cord pH and maternal outcomes (gestational diabetes and any hypertension). We used conditional logistic regression to compare interpregnancy intervals within the same mother and unconditional (unmatched) logistic regression to enable comparison with prior research.

**Results:** Analyses using the traditional unmatched design showed significantly increased risks associated with short interpregnancy intervals(eg, there were 43 preterm births[28.1%] in 6–11 months compared with 152[6.2%] in the >60 months reference group; adjusted odds ratio [OR] for preterm birth 5.96, 95% confidence interval [CI] 4.04–8.79), as well as increased risk of low birth weight 3,78 (2,44–5,85), under apgar score at the minute and 5 minutes (4,39(1,76–10,96) and 5,05(2,25–11,32)) without affecting umbilical cord pH. Women with interpregnancy intervals between 12–59months all appeared to be at slightly lower risk of gestational diabetes and any hypertension.

**Conclusion:** Our research is consistent with previous analyzes, our research supports a relationship between short interpregnancy intervals and adverse neonatal outcomes, and does not support a relationship between the long interpregnancy intervals and adverse maternal outcome.

#### P-0142 | POSTER | PUBLIC HEALTH

# DETERMINING COUPLES' OPINIONS TOWARDS PATERNITY AND THEIR NEEDS FOR EDUCATION AND COUNSELING

<u>Meryem Kalkan</u>, Müyesser Orhan , Ümran İlhan ,Zeynep Toptaş , Zübeyde Ekşi Güloğlu *Marmara üniversitesi, Turkey* 

#### Abstract:

**Objectives:** This study aimed to determine future fathers' needs for information, counseling and education regarding pregnancy, birth, prenatal and postnatal periods, and the attitudes and behaviors towards paternity.

**Methods:** This descriptive study was conducted on Fridays between February 20 and May 29, 2017 in maternity and pregnancy monitoring polyclinics of Bakırköy Sadi Konuk Training and Research Hospital, Zeynep Kamil Maternity and Children's Training and Research Hospital and Kartal Dr. Lütfi Kırdar Training and Research Hospital, all of which operate under the Ministry of Health, at İstanbul. Necessary permissions were obtained, and the study was conducted with 184 fathers/future fathers. The data were collected using the questionnaire form prepared in accordance with the literature by the researchers and performing the interview method. Within this study, the data regarding the demographic and descriptive characteristics of the fathers/future fathers, knowledge level regarding the pregnancy, presence of training or counseling in this field and counseling-related needs, and men's attitudes and behaviors towards fatherhood were collected.

**Results:** The findings obtained in this study indicated that 65.8% of the fathers did not receive education or counseling and 53.8% did not want to receive education during the pregnancy period. 28.3% of the participants stated that they would like to receive counseling for pregnancy while 41.3% expressed that they would like to receive education on the effects of pregnancy on women. The rate of participants who felt ready to be father is 91.3%. Of the fathers, 79.3% stated that their current mood was positive.

**Conclusions:** This study reported that future fathers had needs for education and counseling.

**Keywords:** adaptation to fatherhood, education, counseling, social support.

### P-0143 | POSTER | PUBLIC HEALTH EVALUATION OF TECHNOLOGY USE IN WOMEN'S LIVES

Zübeyde Ekşi Güloğlu, Cansu Cinek, Rabia Yağız Marmara University, İstanbul, Turkey

#### Abstract:

**Objective:** This descriptive study was conducted to determine the continuously evolving technological products and diagnosis/treatment methods women use in their daily lives regarding their health.

**Material and Method:** The study population included literate women who applied to the polyclinics of Yakacık Maternity and Children's Hospital and were over 18 years of age. The sample consisted of the women who volunteered for the study (n:500). The relevant literature was reviewed to collect data, and the questionnaire form prepared by the researcher was used.

**Findings:** The results indicate that the mean age of the participants was 34.03±11.54. Most participants (69.8%) were married, 32.6% were university graduates, and 71.8% had a job. Moreover, 82.8% had social insurance, 70.4% had a moderate economic status, 74.0% lived with 2-4 persons at home, and 61.2% mainly lived in the metropolitan cities. The technological tools women use most and least in their daily routines were found to be the iron (47.8%) and the anti-cellulite machine (3.2%). Moreover, 59.2% had one television, 21.4% had one desktop computer, 43.8% had one laptop, 41.2% had two smartphones, 25.8% had one normal cell phone, and 36.4% had one tablet at home. Among the participants, 20.2% used the internet for two or three hours to learn about health-related issues (79.0%), and WhatsApp was popularly used social media application (79.2%). The frequency of watching TV was two or three hours a day (38.6%). The internet searches of the participants included information on losing weight (36.4%), birth types (26.6%), relationships and communication in marriage (16.2%), self-breast examination (15.6%) and menopause (8.2%).

**Conclusion:** The majority of the participants were able to access the internet (87.6%) and use social media (84.6%), and they used the internet, particularly to learn about health-related issues (79.0%).

**Keywords:** women, health, technology, the intern

#### P-0144 | POSTER | PUBLIC HEALTH

#### CLINICAL COURSE AND OUTCOME IN PATIENTS WITH EARLY DIAGNOSED CAKUT

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#### Abstract:

Congenital anomalies of the kidney and urinary tract- CAKUT are common childhood pathology accounting for 20-30% of perinatally detected congenital anomalies. CAKUT significance implies to the risk they represent to kidney function deterioration and end stage renal disease development. The aim of this study is to analyze the clinical course and outcome in patients with early diagnosed CAKUT.

The study design is retrospective observational study. 100 patients with early diagnosed CAKUT at University children hospital, Skopje, were enrolled in the study. The results from this study represent the clinical course and outcome in the study group. Urinary tract infections were seen in 30% of patients enrolled in this study, they were predominantly girls (65%), mostly diagnosed with posterior urethral valve, VUR and UPJO. Surgical treatment was needed in 28% of patients, and chronic renal failure was diagnosed in 4% of the total number of patients in this study. This study strikes to contribute to early diagnosed CAKUT understanding as well as establishing a protocol for early detection and adequate treatment initiation to prevent renal function deterioration.

#### P-0145 | POSTER | PUBLIC HEALTH

### DETERMINING SOCIETY'S OPINIONS TOWARDS PREMARITAL COUNSELING

Elif Şahin, Zübeyde Ekşi Güloğlu Üsküdar University, Istanbul, Turkey

#### Abstract:

**Objectives:** This descriptive study aimed to determine individuals' knowledge and opinions about premarital counseling and opinions.

**Methods:** The study was conducted between January 15 and May 15, 2016 with the people at İskele Meydanı (Pier Square), Üsküdar, İstanbul. The population included the males and females who were 18 years old or older. 439 people who accepted to participate in the study constituted the sample. The data were collected using a questionnaire form which included 21 questions and was prepared in accordance with the literature. After receiving the necessary permissions, the questionnaire forms were administered by the researcher to the voluntary people at the downtown of Üsküdar.

**Results:** 439 people participated in the study and 256 of them (58.3%) were females while 183 (41.7%) were males. Of the participants, 42.8% were married and 49.9% were single. Most of the participants obtained information in the premarital period by seeing a medical specialist (61%) and performing research on the internet (53.3%). More than half of the participants (60.4%) knew/heard about premarital counseling. The majority (69%) believed that this type of counseling is necessary. Half of the participants (52.8%) preferred family healthcare centers for receiving premarital counseling services and approximately half of the participants (48.1%) wanted to receive education during the engagement period. Most of the participants (57.6%) demanded that both premarital counseling and education be provided to the couples by a psychologist.

**Conclusion:** Considering the results of this study, it is recommended that public healthcare centers and public education centers be established at regions far from the hospital for ensuring that premarital education is comfortably provided to the people with easy access, these centers be used more actively, and gynecology nurses play more active roles in premarital counseling services.

**Key words:** Premarital counseling, nursing, education

#### P-0146 | POSTER | PUBLIC HEALTH

#### UNHEALTHY ENVIRONMENT AND ATTITUDE TO ITS ADVERSITY

Nyoyoko Rhoda Sylvanus, Willie Ubong Eyak

#### Abstract:

This explores the role of environments in creating chronic and acute health disorders. A general framework for studying the nesting of social environments and the multiple pathways by which environmental factors may adversely affect health is offered. Treating socioeconomic status (SES) and race as contextual factors, we examine characteristics of the environments of community, work, family, and peer interaction for predictors of positive and adverse health outcomes across the lifespan.

We consider chronic stress/allosteric load, mental distress, coping skills and resources, and health habits and behaviors as classes of mechanisms that address how unhealthy environments/publicget "under the skin," to create health disorders. Across multiple environments, unhealthy environments are those that threaten safety, that undermine the creation of social ties, and that are conflictual, abusive, or violent.

A healthy environment, in contrast, provides safety, opportunities for social integration, and the ability to predict and/or control aspects of public health.

### P-0147 | POSTER | PUBLIC HEALTH AMNIOTOMY IN NULLIPAROUS WOMEN DURING ACTIVE PHASE OF LABOR

<u>Yapar Eyi Elif Gül,</u> Ayşegül Baylas Zekai Tahir Burak Women's Health Education & Research Hospital, Turkey

**Objective:** To determine the efficacy and safety of routine amniotomy during active phase of labor for both the mother and the baby in a teaching hospital

**Materials and Methods:** A prospective randomized trial was carried out on pregnant women with single, low risk, nulliparous term pregnancy, at vertex presentation with intact amniotic membranes at Zekai Tahir Burak Women's Health Education & Research Hospital during year 2016 to evaluate the effect of amniotomy, two groups, consisting of amniotomy performed(n=120) and non amniotomy performed (n=118) pregnant women were formed

**Result:** In comparison of the duration of labor: active phase of labor according to Zhang from 6 cm cervical dilatation to complete dilation was not found to be statistically different between amniotomy and non-amniotomy groups (p<0.05). However, the rate of C/S and the length of hospital stay were higher in the amniotomy group, with p values 0,030 and 0,037 respectively

**Conclusion:** Amniotomy alone should not be introduced routinely as a part of standart active phase labor management.

### P-0148 | POSTER | SECOND STAGE OF LABOR A CASE REPORT OF A PING-PONG FRACTURE IN A NEWBORN

<u>Joana Pascoal Curado</u>, Inês Gomes, Isabel Lobo Antunes, Luís Canelas, Alcides Pereira Serviço de Obstetrícia do Hospital Garcia de Orta, Almada

#### Abstract:

Ping pong fractures are depressions that can occur in neonatal skull, diagnosed usually following birth. They occur in 3.7/100.000 births and rarely cause neurologic lesion. Although they can occur spontaneously during pregnancy, instrument deliveries constitute a major risk factor. Spontaneous elevation of this fractures has been described, however a surgical reduction may be performed.

We present the case of a nullipara, 39 weeks pregnant, who was admitted in our labour department in active phase of labour. The labour progressed uneventfully. In second stage a dystocia was diagnosed, the presentations was right occiput posterior. We decided to use a Kielland forceps for rotation, and a Simpson forceps for delivery. A shoulder dystocia was rapidly solved with the delivery of the posterior arm first. The newborn weighed 3710 g and had an Apgar score of 7/10 in the 1st and 5th minutes. Following birth, temporo-parietal right depression was observed. The transfontanelar ultrasound showed no abnormalities. A surgical reduction was performed during the first day of life. The baby is now 6 months old, with normal neurological development.

Ping pong fractures may occur spontaneously, but most cases are associated with instrument deliveries. Although neurological disabilities are rare, they are more common following instrument deliveries. All in all, the prognosis is good and the recovery is excellent.

### P-0149 | POSTER | SECOND STAGE OF LABOR NITROUS OXIDE FOR LABOUR ANALGESIA: ANALGESIC OPTION FOR WOMEN IN CROATIA

### <u>Iadranka Šanjug</u>, Rajko Fureš

Nitrous Oxide for Labour Analgesia: Analgesic Option for Women in Croatia , General Hospital Zabok, Croatia, Department of Gynaecology and Obstetrics

#### Abstract:

**Objectives:** To examine the effects of inhaled analgesia on the mother and the new-borns for mothers who planned to have a vaginal delivery. Effective pain management during labour is important because pain affects the birth experience. Epidural analgesia is effective but often it may not be possible; however, inhaled analgesia offers another option. Use of inhaled nitrous oxide and oxygen for pain management in labour is well established in obstetrics but is still not still used in Croatia. Aim of this study is to investigate the acceptance of the inhaled analgesia of inhaled nitrous oxide and oxygen by gynaecologists and pregnant women during labour.

**Material and Methods:** In this investigation carried between November 2016 to July 2017, a total of 50 pregnant women received inhaled nitrous oxide and oxygen during labour on request and 50 pregnant women who haven't received inhaled or epidural analgesia. There were determined: duration of labour, VAS score, Apgar score and umbilical blood cord pH in both groups.

**Results:** A statistically significant reduction of pain and duration of labour were achieved with nitrous oxide and oxygen. Cord blood pH and Apgar score weren't statistically significant. The inhaled analgesia was mostly used by women who refused epidural analgesia.

**Conclusion:** Inhaled nitrous oxide and oxygen is an effective method for pain management uring labour and is accepted well by women in labour as well as gynaecologists and midwives.

#### P-0150 | POSTER | TRAINING MODELS IN OBSTETRICS

#### **DISEASE WARNING GRADING**

<u>Tao Minfang</u>, Teng Yincheng Shanghai Jiaotong University affiliated sixth 6 People Hospital, Shanghai, PR China

Abstract:

**Objective:**To explore the role of the example's training based on "disease warning grading" on the obstetric quality and Intensive management.

**Methods:**To train the professional obstetricians which come from the administrative region of the perinatal intensive-care monitoring, shanghai jiaotong university No. 6 people's hospital based on "disease warning grading" from 2011 to 2012.To collect all the patients in the center which transferred from the administrative region and analyze the changes of the disease warning grading and standardization of patient transfer between 2008-2012 with 2013- 2016.

**Results:** The ratio of Yellow warning patient, Obstetric complications before the training were higher than those of after the training. The ratio of the Orange and red alert patient , physicians and surgical complications, standardization of patient transfer before the training were lower than those of after the training P<0.01.

**Conclusion:** The example's training of obstetrician which based on "disease warning grading" would make full use of the obstetrics resources, strengthen the obstetric quality and increase the effect of the obstetric intensive prevention and management

#### P-0151 | POSTER | TRAINING MODELS IN OBSTETRICS

# HAEMODYNAMICS IN A VESSELS OF LOWER EXTREMITIES AND IT INFLUENCE ON UTEROPLACENTAL AND FETAL BLOOD CIRCULATION IN NORMAL PREGNANCY AND IN THREATENED ABORTION OR PREMATURE BIRTH

<u>Tatiana Botasheva</u>, Khloponina A.V., Rudova O.I., Gimbut V.S., Zheleznyakova E.V., Gudz E.B. Federal State Institution "Rostov-on-Don Scientific and Research Institute of Obstetrics and Pediatrics" of Russian Health Ministry; Russian Federation, Department of Obstetrics and Gynecology

#### Abstract:

The purpose of the present study was to assess an influence of blood circulation in lower extremities on uteroplacental circulation in normal pregnancy and in threatened abortion or premature birth.

The present study included 136 patients with normal pregnancy (I study group) and 115 women with threatened abortion (II study group). In each patient was evaluated a basic doppler indices of main arteries and veins in lower extremities, in uterine arteries, in umbilical arteries and fetal middle cerebral artery.

The Valsalva test was also performed, the diameter of the veins was measured and the fraction of regurgitation of right and left lower extremities. In normal pregnancy we have revealed a right-sided asymmetry of blood circulation in lower extremities: Peak systolic velocity (PSV) and mean blood flow (MV) were higher in the arteries of right limbs on 21-27%. In threatened abortion or premature birth these parameters were near to equal or showed left asymmetry of blood flow up to 23-35%.

We had established among factors that may increase the likelihood of threatened abortion or premature birth in I trimester may connected to a valves insufficiency of the right femoral vein of 1-2 degree, and in II and III trimester - are valves insufficiency of left or both femoral veins of 1-2 degree. It was found the occurrence of uteroplacental and fetoplacental blood flow disturbances in women with threatened abortion or premature birth are connected with the insufficiency of the veins valves predominantly of left limbs in 89% of patients. In normal pregnancy and in threatened abortion or premature birth it should to identify the "basic" and "emergency" adaptive vascular hemodynamic mechanisms of the lower extremities, the functioning of which is aimed at maintaining an optimal level of regional blood flow in complex of uterus-placenta-fetus.

#### P-0152 | POSTER | TRAINING MODELS IN OBSTETRICS

### HYDROXYCHLOROQUINE: BETTER OUTCOME IN PREGNANCY WITH APS

<u>Parisa Moghtadaei</u>, Nikpour Fatemeh *Laleh Hospital, Tehran* 

Abstract:

**Objective:** The prospective cohort study to assess pregnancy outcomes in women with AntiPhospholipid Antibodies (APS) treated with hydroxychloroquine (HCQ) in addition to other drugs

**Method & Materials:** one-hundred thirty pregnancies were enrolled .71 patients were treated with HCQ at least four months before pregnancy and continued through the gestation (group 1), 59 patients with APS were not treated with HSQ (group 2).

**Results:** HSQ treatment was association with higher rate of live birth (75% vs. 45% p=0.003). The association of fetal loss >12 weeks (4% vs. 15%p=0.05), placenta-associated complications (6% vs. 17% p=0.05) were less in group 1.

Conclusion: Patients with APS may benefit from hydroxychloroquine treatment in pregnancy

**Key words:** hydroxychloroquine, APS, pregnancy outcome

#### P-0153 | POSTER | TWIN GESTATIONS

# ILEAL STENOSIS IN GROWTH RESTRICTED TWIN FOLLOWING OVULATION INDUCTION

<u>Wai Leng Wong</u>, Sook Ling Lee, Wei Ching Tan, Hak Koon Tan Singapore General Hospital / Department of Obstetrics and Gynaecology

#### Abstract:

**Introduction:** Ileal stenosis results from a vascular accident in utero that leads to decreased intestinal perfusion and subsequent ischaemia in a segment of bowel.

Case report: Patient was a 27-year old Indian who had undergone ovulation induction. Ultrasound included: (i) 20 weeks showed normal dichorionic diamniotictwins. (ii) Growth scan at 26+1 weeks showed a well grown male fetus, and a small for gestation female fetus with estimated weight at 8.3%centile. (iii) Scan at 27+6 weeks revealed discordant growth with fetal growth restriction (FGR) of the female fetus. Doppler study demonstrated umbilical artery pulsatility index above 95 percentile and middle cerebral artery pulsatility index below 5th percentile, giving a low cerebroplacental ratio. Ductus venosus showed positive 'a' wave. (iv)Weekly ultrasound showed similar findings. Oligohydramnios was noted in female twin. Following antenatal corticosteroids and magnesium sulphate, elective LSCS performed at 32weeks. Two premature live births were delivered:- (i)Male baby with birthweight of 1700g, discharged on Day47 of life with weight of 2860g; (ii) Female baby with birthweight of 945g presented with persistent greenish-brownish aspirates and inability to pass meconium spontaneously without suppository and rectal washout since birth. X-Rays after Day17 of life shows foaminess on right upper quadrant and dilated bowel loops. Exploratory laparotomy was made on Day21 of life .Intraoperative findings: Ileal perforation.3cm from ileocecal valve. 1cm distal to perforation was the stenosis. Post-operatively: Baby progressed well and discharged on Day79 of life with weight of 2715g.

**Conclusion:** On antenatal ultrasound, ileal atresia would result in a proximal dilated intestinal segment. The stenosis may be a sequelae of reduced intestinal perfusion in FGR in a premature baby.

#### P-0154 | POSTER | TWIN GESTATIONS

# TWIN PREGNANCY WITH TRAP SEQUENCE COMPLICATED WITH RETROPLACENTAL HEMATOMA – A CASE REPORT

<u>Malutan Andrei Mihai,</u> Marina Dudea , Razvan Ciortea, Costin Berceanu, Carmen Bucuri, Maria Rada, Dan Mihu

"Dominic Stanca" Obstetrics and Gynecology Clinic, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

#### Abstract:

Twin reversed arterial perfusion (TRAP) sequence is a rare (1/35.000 pregnancies) and severe complication specific to monochorionic twin pregnancies, involving the presence of an acardiac twin and a structurally normal co-twin (pump twin). The normal twin has a high mortality rate (50-70%), especially due to congestive heart failure. We report on the case of a IIG IIIP 33 year-old patient who was referred to our institution form another service with the initial diagnosis of multiple pregnancy with one dead twin. Ultrasound revealed 24 gestational weeks intrauterine biamniotic monochorionic twin pregnancy with TRAP sequence and polyhydramnios.

Therapeutic amniocentesis was performed for polyhydramnios, evacuating 500 ml of amniotic fluid. A fetoscopic intervention was decided, with the occlusion of the umbilical cord of the acardiac twin, followed by the evacuation of another 700 ml amniotic fluid.

The patient was readmitted to our institution at 34 gestational weeks for preterm premature rupture of membranes and vaginal bleeding. Ultrasound revealed intrauterine growth restriction of the living twin, corresponding to 30 gestational weeks and retroplacentar hematoma, reaching 8,5/5 cm. The patient gave birth through cesarean section to a living female fetus, weighing 1480 g, Apgar score 6, 7, 8 at 1, 2 and respectively 5 minutes.

In conclusion, TRAP sequence is a rare entity, requiring early diagnosis and careful ultrasound monitoring, in order to select the best management option for the pump twin. To the best of our knowledge, this is the first case reporting a twin pregnancy with TRAP sequence complicated with retroplacentar hematoma.

#### P-0155 | POSTER | TWIN GESTATIONS

# DOWN SYNDROME IN GROWTH RESTRICTED TWIN: CASE REPORT AND ULTRASOUND FINDINGS

<u>Sook Ling Lee</u>, Tan WC, Tan HK <u>Singapore General Hospital / Department of Obstetrics and Gynaecology</u>

Abstract:

**Introduction:** Observations have shown that loss of one twin in the first trimester does not appear to impair the development of surviving twin. Cytogenetic studies have also shown that occurrence of trisomy 21 in twin pregnancies is low.

Case report: Mdm M was a 33 year-old Malay female; on metformin for Diabetes Mellitus type II for two years. First trimester scans: (i) Viability scan at 7+2 weeks showed two gestational sacs containing two viable embryos; (ii) Viability scan at 9 weeks confirmed dichorionic-diamniotic pregnancy. Crown-rump length was 23 mm and 3 mm respectively with no heart pulsations in the smaller embryo; (iii) First trimester screening (FTS) at 12+4 weeks noted nuchal ranslucency of 3.4 mm, nasal bone was hypoplastic. FTS was high risk for aneuploidy, Trisomy 21 >1:4. Patient declined amniocentesis. Second trimester ultrasound: (i) Fetal screening scan at 21+1 weeks noted abdominal circumference and femur length just above 5th percentile. (ii) At 24+1 weeks, Head circumference (HC), AC and FL remained on the 5th percentile, Umbilical artery pulsatility index (UAPI) was above 95th percentile. Follow-up scan showed similar findings. At 28+2 weeks, Absent end-diastolic flow was noted in UAPI with positive 'A' wave in ductus venosus. Antenatal corticosteroids and magnesium sulphate for cerebral palsy prophylaxis were administered. Emergency caesarean section was performed at 28+4 weeks for Non reassuring fetal status

**Results:** Female baby of 770g was delivered. Karyotype revealed Trisomy 21.

**Conclusion:** Studies addressing the risk of aneuploidy with diabetes have suggested that chromosomal abnormalities occurring with pre-existing diabetes are likely to be associated with the risks of increasing maternal age. Preconception counseling may be beneficial for patient.

#### P-0156 | POSTER | TWIN GESTATIONS

### **CONJOINED TWINS - THORACOPAGUS: CASE REPORT**

<u>Danijel Bursać,</u> Jasenka Zmijanac Partl, Sandra Stasenko, Ratko Matijević, Željko Duić *University hospital Merkur, Zagreb* 

#### Abstract:

Conjoined twin pregnancy is rare form of identical twin pregnancy. They are referred as monozygotic, monoamniotic and monochorionic twins with a varying degrees and sites of fusion. In medicine they represent one of the rarest forms of twin gestation and are defined and classified by the conjoined body area according to the most prominent site of conjunction: thorax (thoracophagus), abdomen (omphalopagus), sacrum (pygophagus), pelvis(ischiophagus), skull (cephalopagus) and back (rachiopagus). The incidence is estimated at 1 in 50,000 to 1 in 200,000 births. Approximately 75% of conjoined twins are females.

Thoracopagus is the most common form of conjoined twins with fusion from the anterior thorax to the umbilicus. They come as a result of incomplete division of zygote later then the 12th day after fertilization. A common pericardial sac is present in 90% of thoracopagus twins and the prevalence of conjoined hearts is 75%. Early prenatal diagnosis with ultrasound (US) and magnetic resonance imaging (MRI) of conjoined twins allows for better counseling of the parents regarding the management options. A 40% of conjoined twins are stillborn and another 30% die during first day of life.

In this abstract we present a case of conjoined twins (thoracopagus) diagnosed prenatally in 13rd week of gestation using (2D,CD) US and was determine precisely with prenatal MRI in 24th week of gestation. A 25 year-old female patient, P 0, G0 at 13 weeks of gestation, had come in our fetal medicine clinic for detail US exam with suspicion on conjoined twins pregnancy.

The patient is healthy Caucasian female without consanguineous marriage, previous illness, alcohol abuse or cigarette smoking in her medical history. This was spontaneous pregnancy. On ultrasound examination the pregnancy with conjoined twins was confirmed. The fetus had two heads, four legs and four arms and was joined by thorax and upper part of the abdomen. Placenta with one umbilical cord that had three blood vessels was found. The suspicion of a complex cardiac and abdominal malformation was formed. The patient was informed about her condition and a possible complication regarding her pregnancy and its potential fatal outcome. Prompted by her personal, religious and moral beliefs she decided to continue with her pregnancy. During the 24th week of pregnancy, MRI confirmed the diagnose of joined heart and part of divided liver. Fetal echocardiography was also performed. During 34th week of gestation the patient was hospitalized for fetal lungs maturation with dexamethasone and for planned termination of pregnancy by Cesarean section. The pregnancy was terminated with a Cesarean section at 33+4/7 week of gestation. The conjoined female twins were delivered with total birth weight of 3430g. and Apgar score of 4/6. Immediately after delivery twins were transferred to a neonatal intensive care unit. During the 7th day after delivery both conjoined twins had passed.

Each set of conjoined twins pregnancy is unique. Imaging plays an important role. Prenatal evaluation of shared organs is of utmost importance for prognostic information. MRI plays complementary role to US in evaluation of complex anomalies found in this unusual anomaly

#### P-0157 | POSTER | VERY LOW BIRTH - WEIGHT INFANTS

# MORBIDITY OF EXTREMELY LOW BIRTH WEIGHT INFANTS BORN IN UMHAT PLEVEN THROUGH THE PERIOD 2005-2016

<u>Atanasova Victoria</u>, Valerieva Elitsa , Veskov Lyuben *Clinic of Neonatology, UMHAT, Pleven, Bulgaria* 

#### Abstract:

**Objective:** To examine the clinical problems of ELBWNs during their hospital stay born in UMHAT Pleven from 2005 through 2016.

**Material and methods**: 151 live born ELBWNs (< 1000 g) were followed up to discharge. 3 groups were differentiated: discharged healthy (1), discharged with complications (2), and deceased (3). Gestational age, birth weight, intrauterine growth restriction (IUGR), birth anomalies, intubation in the delivery room, inborn infections are compared. Clinical complications and postconceptional age at the discharge are compared in the survivors.

**Results:** 75 from the 151 children survived (50%), 43 of them were discharged healthy (29%) and 32 were discharged with complications (21%). The deceased were characterized by the lowest birth weight (786±124 versus 914±94 in group 1 and 826±118 g in group 2; p 0.0000), highest incidence of IUGR (36 versus 26 in group 1 and 9% in group 2, p 0.036) and most often were intubated in the delivery room (82 versus 51 in group 1 and 75% in group 2, p 0.0037). The newborns of group 2 were the most immature (25.9±1.7 versus 27.7±2.2 in group 1 and 26.3±2.3 in group 3, p 0.0006). Comparing both survivor groups: infants in group 2 suffered often from birth asphyxia, required prolonged mechanical ventilation and oxygen therapy, achieved optimal food tolerance later and were discharged 2 postconceptional weeks later. They were more frequently affected by intraventricular hemorrhage, patent ductus arteriosus, bronchopulmonary dysplasia, retinopathy of prematurity and anemia.

**Conclusions:** According to our data the main factors compromising survival in ELBWNs are IUGR and birth asphyxia. The morbidity and long term outcome are related exclusively to the organ and tissue immaturity.

#### P-0158 | POSTER | VERY LOW BIRTH - WEIGHT INFANTS

# EVALUATION OF VERY LOW BIRTH WEIGHT PREMATURE INFANTS HOSPITALIZED IN NEONATAL INTENSIVE CARE UNIT BETWEEN 2006-2016

<u>Joana Verdelho Andrade</u>, Patrícia Lapa, Rui Castelo, Rosa Ramalho Centro Hospitalar Tondela-Viseu E.P.E.

#### Abstract:

**Objectives:** With continuing developments in the field of neonatology, survival rates of very low birth weight infants have increased, which in turn has brought important prematurity-related problems. To evaluate retrospectively the morbidity and mortality in a group of VLBW infants in a Neonatal Intensive Care Unit.

**Methods:** Retrospective, descriptive and analytic review of VLBW preterm infants hospitalized between 2006-2016. Demographic characteristics, clinical history, comorbidities and follow-up were analysed.

Results: Among 863 VLBW newborns, 52% female, average gestational age and birth weight was 27 weeks and 1241g and 74% were born via caesarean section. Complete prenatal corticotherapy was performed in 53% pregnancies. Cardiopulmonary resuscitation in the delivery room (DR-CPR) was required in 47%. In the group of preterm infants with 24 to 26 weeks, 69% received DR-CPR compared with 46% infants with 27 to 31 weeks. Conventional ventilation was needed in 43% newborns. In fact, more frequently newborns born with 27 weeks or less needed conventional ventilation while those with 30 weeks or more required noninvasive ventilation (p<0,01). Hyaline membrane disease was detected in 52% and the group of newborns with 27 weeks or less was the most frequently affected (p<0,01). Bronchopulmonary dysplasia was identified in 15%, pneumothorax in 4%, patent ductus arteriosus in 27%, necrotizing enterocolitis in 9%, retinopathy of prematurity in 3%, complicated intracranial haemorrhage in 3% and cystic periventricular leukomalacia in 2%. Early-onset sepsis and/or meningitis were recognized in 4% and late-onset sepsis and/or meningitis in 44%, newborns born with 27 weeks or less were more frequently affected by both entities (p<0,01). The overall survival was 87%.

**Conclusion**: Morbi-mortality rates of our centre compare favourably with international standards. Infants with 27 weeks or less had potentially more risk for major morbidity. Indeed, this group was more frequently in risk for hyaline membrane disease and early or late-onset sepsis and/or meningitis, thus highlighting the continuing challenges facing these vulnerable patients, their families, and the health professionals who care for them

#### P-0159 | POSTER | VERY LOW BIRTH - WEIGHT INFANTS

# FEATURES OF SOMATIC STATUS OF CHILDREN 1 YEAR OF AGE, BIRTH ON ANTENATAL DIAGNOSED CRITICAL STATE OF THE FETUS

<u>Irina Ignatko,</u> Strizhakov Alexander N., Kardanova Madina A., Rodionova Alexandra M., Kuznetsov Anton S.

Sechenov Moscow State Autonomous Medical University

#### Abstract:

In recent years, the field of scientific and practical interest has shifted to ensuring the health of newborns and children that contribute to public health and future generations. The health of Russia's population, including reproductive health, to date, represents the State value. In recent years, in Russian Federation, there is a trend to an increase in fertility, including in connection with transition from 2012 registration of childbirth recommendations of the WHO with 22 weeks of gestation, but is directly proportional to increasing morbidity and mortality through early disability and perinatal morbidity. The highest frequency of adverse perinatal outcomes occurs in placental insufficiency, particularly in critical condition in the fetus, resulting in the subsequent health of the future generation. The aim of our study is to investigate the morbidity of babies in the first year of life birth on antenatal diagnosed critical state of the fetus.

The highest perinatal mortality, high perinatal morbidity with the outcome of the disability we get at the critical state of the fetus, which should be understood as a degree of violation of the morphofunctional state in which the depletion of the compensatory mechanisms is the high risk antenatal, intrapartum or early neonatal death. According to various authors, the perinatal mortality rate in critical condition of the fetus reaches 9.3‰, early neonatal and 7.5‰. For the critical condition of the fetus characterized by early and very early preterm birth, severe perinatal CNS damage, respiratory distress syndrome, which subsequently affects the health status of children born in decompensated placental insufficiency.

The aim of our research is the study of morbidity of children of the first year of life, born with antenatal diagnosed critical condition of the fetus. A clinical prospective study of 83 pregnant women with complicated critical to the fetus during pregnancy. The results of the study revealed high perinatal morbidity. Perinatal loss in the study group was 1.8‰ (N=15). Of the 68 surviving children, only 33 (48,5%) were observed later in the study of the catamnesis. When studying the history of the development of children during the first year of life with a critical antenatal diagnosed fetal-placental blood flow was noticed by the high frequency of infectious, allergic, neurological morbidity, abnormalities of bone and cartilage system of the visual apparatus. When analyzing the frequency and duration of monitoring by a neurologist, we have identified the expected high frequency of neurological pathology in children with antenatal critical condition. So, all children up to 1 year of life and further consisted on the account at the neurologist, which was due not only to the severity of CNS damage, but also by prematurity.

The effects of neonatal ivh transferred 2-4 degree newborns manifested in children over 1 year of life in the form of hypertension-hydrocephalic syndrome in 5 children (15,1%), ischemic brain infarction in the region of the "island zone" with the subsequent formation of cystic leukomalacia in 1 child at 1 month of life. For these children, a characteristic diagnosis to the end of the 1st year of life was cerebral palsy (N=6, 18.2 %). It should be noted the high frequency of perinatal encephalopathy among children in this group (100%). Among the violations of psychomotor development we were allocated a syndrome of increased neuro-reflex irritability (restlessness, sleep disturbances, frequent and persistent vomiting) in 3 children (10,5%). The syndrome of autonomic dysfunction remained until 1 year of life in 24 (71,72%) children,

premature live births, respectively gestational age was fading reflexes motor automatism, spinal reflexes, had a late start walking, crawling, ability to sit. There was a high frequency of diagnosis of retinopathy and risk of all children observed in the study of the catamnesis, which is natural, as in decompensated MON characteristic for newborns preterm labor, and abnormalities of cerebral blood flow including microcirculation in the body.

For infants born with antenatal diagnosed with a critical condition of the fetus, characterized by high incidence of infectious disease (more than 2 times per year) in 7(21%) children by the end of 1 the first year of life. Allergic reactions manifest in the first year of life are clinically atopic dermatitis in 5 (15,1%), a high frequency which could be explained not only by prematurity at birth, but also the fact that the majority of children in this group were on artificial feeding. Thus, the results of the study showed that children born with antenatal diagnosed with a critical condition are at high risk of development of neurological pathology, physical, infectious, allergic morbidity, which may further entail the delay of psychomotor, speech development, with a likely outcome in the disability and social maladjustment.

#### P-0160 | POSTER | CESAREAN SECTION DILEMMA

### PLACENTA PÉRCRETA, CASE REPORT

<u>Laura Bonilla Garcia</u>, Vico I, Revelles L, Pérez J, Barranco M, Puertas A *Hospital Universitario Virgen de las Nieves/ Obstetricia* 

#### Abstract:

A 34-year-old woman at 31+5 gestacional week (GW) comes to emergency because she had broken the membranes. Ultrasonography revealed placenta previa anterior, lacunar spaces and uterine myometrial deficiency between the placenta and bladder wall. The Doppler and RMI showed feeding vessels and hipervascularity of the uterine-bladder interface.

The case was discussed and the decision was to perform an ultrasound evaluating fetal growth and lung maturation and according to these propose the ideal moment for the end.

The cesarean section was planned for 32+3 GW. At that time, laparotomy, revealed large blood vessels and placental penetration through the anterior uterine wall and determined that separating the bladder would be extremely difficult. It was performed a vertical uterine incision to avoid the placental, and successfully delivered a healthy female infant. Hysterectomy was dismissed because of the high risk of bleeding. After the cesarean, she was subjected to an embolization of the hypogastric arteries

Post-surgical follow-up were performed analytic controls, ultrasound and RMI. A month after, the patient was discharged, continuing with outpatient controls. Five days later she comes to the control referring abdominal pain, 38,5°C and oliguria reason why, decides admission and 3 days later, due to worsening and a CAT with signs of abscessing at the uterine, it was decided to perform total abdominal hysterectomy. The surgery confirmed the presence of an abscessed. The results of the cultures taken at surgery reported E.coli infection. The postoperative course was favorable.

PP is the most severe variant of placenta accreta. The standard treatment for PP is cesarean hysterectomy; however, some surgeons choose conservative management to avoid potential intraoperative complications. Although conservative management can avoid maternal morbidity, several complications, including sepsis, intravascular coagulation, massive hemorrhage, and delayed hysterectomy, have been reported.

#### P-0161 | POSTER | CESAREAN SECTION DILEMMA

#### IMPACT OF MODE OF DELIVERY ON NEONATAL ADAPTATION

<u>Gordana Subotić</u>, Tatjana Nikolić <u>General Hospital Čačak</u>

Abstract:

**Objectives:** The Cesarean section has become the most commonly performed surgical procedure in developed countries, and its incidence is constantly increasing. Cesarean section, especially elective, carries the risk of iatrogenic prematurity, but also the risk of complications in newborns, due to lack of humoral factors and physiological mechanisms that are activated during spontaneous labor, so the objective of this study was to investigate the differences in adaptation of neonates according to mode of delivery.

**Methods:** This retrospective cross-section study, undertaken at maternity unit of General Hospital Čačak, included 150 newborns (50 born by vaginal delivery – VD, 50 by Cesarean section after trial of labor – CTL and 50 by elective Cesarean section – ECD) from uncomplicated in term singleton pregnancies. Commonly assessed neonatal outcome variables (Apgar at 1 and 5 minute, required measures of resuscitation and the occurrence of transient tachypnea of the newborn – TTN) were used to compare condition at birth, using Kruskal-Wallis and Chi-square testing. Correlation between mode of delivery and neonatal outcome variables was assessed using Spirman's coefficient.

**Results:** In the VD group, gestational age was 37 – 40 weeks, with 12% of newborns born before 39 gestational weeks. In the CTL group, the range was 37 – 41 weeks, with 22% born before 39 weeks, while in the ECD group, gestational age was 37 - 41 weeks, but 42% of newborns were born before 39 gestational weeks, (p<0.001). Appar in 1 minute did not differ significantly. Apgar in 5 minute was significantly different between the groups (p=0.009) – CTL group had the lowest score, while the other two groups did not differ significantly. Delivery room resuscitation was required in 23.3% cases, which included 6% neonates in VD group, 44% in CTL and 20% in ECS group (p<0.001). Routine procedures (drying and stimulation) were required in 16.7% and 11.3% cases respectively, while bag/mask ventilation was required in 16% cases. TTN was diagnosed in 24% of newborns (8% VD, 30% CTL and 34% ECS; p=0.005). In VD, TTN was significantly less common than in CTL and ECS groups. The occurrence of TTN did not differ significantly between CTL and ECS. The mode of delivery had a significant correlation with the occurrence of TTN. Also, there was a higher likelihood of TTN in neonates of lower gestational age and in cases where TTN occurred, a higher respiratory rate was registered in neonates of lower gestational age. The association of observed variables was stronger for gestational age than for mode of delivery.

**Conclusions:** Method of delivery affects the adaptation of the newborn. Whenever possible, delivery should be done vaginally, and in cases of ECD, it is recommended not to be done before 39 weeks of gestation.

**Key words:** mode of delivery, neonatal adaptation

#### P-0162 | POSTER | CESAREAN SECTION DILEMMA

#### DEFECT OF COL4A1 AND MASSIVE FETAL INTRACRANIAL HEAMORRHAGE

<u>Marijo Cukelj</u>, Ozren Grgic, Ivka Djakovic, Senka Sabolovic Rudman, Vesna Kosec *University Hospital Center Sestre Milosrdnice* 

#### Abstract:

COL4A1 gene encodes the alpha 1 chain structure of collagen type IV as a main basal membrane component, especially in blood vessels. Weakness of collagen type IV leads to small vessels structural changes, particularly in fetal brain.

Mutation in COL4A1 is associated with familial porencephaly, cataract and HANAC syndrome. It was first decribed in a mouse model in 2005. In fetal brain diffuse white matter lesions can be found together with retinopathy and internal cerebral artery aneurysm. In general, fetal intracranial haemorrhage occurs with the incidence of 1/1000 pregnancies and their etiology in most of the cases remains unrecognized.

We present a patient in 22nd week of pregnancy with a history of 2 previous miscarriages, with massive fetal intracranial heamorrhage and abortion induction in one of them. Moreover, we found out that her husband suffered from hemorrhagic stroke 3 years ago, that was of unknown cause. Now she presented in 22nd week with the same fetal intracranial heamorrhage.

#### P-0163 | POSTER | CESAREAN SECTION DILEMMA

#### **VAGINAL BIRTH AFTER CESAREAN**

<u>Marija Tasic</u>, Jelena Milošević-Stevanović, Nikola Tasić Clinic of gynecology and obstetrics, Clinical center Nis

#### Abstract:

High rates of Cesarean section represent the main concern of modern obstetrics. A high increase in the number of Cesarean cuts, without evidence of the accompanying reduction in maternal or neonatal morbidity and mortality, causes the great concern in the sense that the Cesarean section is overused nowadays. It also has significant implications for future births. The incidence of placental complications (such as placenta praevia) in future pregnancies increases with each subsequent Caesarean section. After 3 Cesarean cuts, the risk of placenta praevia complicating by placenta accreta is almost 40%.

The rule "One Caesarean section, always a Caesarean section" was presented by Edwin Cragin in 1916. This opinion was valid and widely accepted throughout the 20th century. However, in the 70s of the last century, a small group of women with previous Cesarean section, was encouraged to experience vaginal delivery. Success in these cases, enforce the obstetric professionals to give a green light trial to pregnant women with previous Caesarean section in. Vaginal delivery after the Caesarean section is one of the most significant changes in obstetric practice. There is a great deal of discussion about defining an acceptable rate of Cesarean sections that gives an optimal perinatal outcome. The purpose of this paper is to provide substantiated information about prenatal and intrapartal protection of pregnant women who have had previous Caesarean section, as well as about options for planning vaginal birth after the Cesarean section (VBAC) apropos options for elective repeat Cesarean section (ERCS). Most of the current studies examined the safety of VBAC versus ERCS despite the fact that the risks that these deliveries carry with them are quite different. The question raised by this fact reads: "Should the VBAC outcome be compared to the outcome of ERCS or is a valid comparison of VBAC with the outcome of delivery in nulliparous?"

Based on the consensus of the British National Institute of Health (NICE), the Royal College of Obstetricians and Gynecologists (RCOG) and the American College of Obstetricians and Gynecologists (ACOG) planned VBAC is considered a clinically safe choice for most women with a previous transverse incision of the lower uterine segment. VBAC was promoted to reduce the rate of Cesarean sections. Repeated Cesarean cuts make more than a third of all Caesarean sections, and half of these interventions could be avoided without a statistically significant risk. Antenatal counseling of pregnant women with previous Caesarean section should be documented. It is recommended to introduce an information leaflet and checklist for VBAC during antenatal monitoring. Counseling and joint decision-making are the best way to improve modern obstetric practice.

An individual assessment of similarity for VBAC is necessary in all cases, especially in those where there are factors that increase the risk of uterine rupture. The final decision of the mode of delivery should be made with the participation of the pregnant woman before the expected / planned birth date and documented in the notes.

#### P-0164 | POSTER | FETAL MEDICINE

# POSNATAL OUTCOMES OF FETUSES WITH THE PRENATAL DIAGNOSIS OF CONGENITAL CYSTIC ADENOMATOID MALFORMATION IN A REFERENCE SERVICE IN BRAZIL

Alberto Borges Peixoto, Amanda Pinheiro Loretti, Bruno Rodrigues Toneto, Raquel Margiotte Grohmann, Veronica Matos Moreira, Bruna Côrrea Beraldo, Tatiane Boute, Edward Araújo Junior, Luciano MM Nardozza, Liliam Cristine Rolo Paiato

Department of Obstetrics, Paulista School of Medicine – Federal University of São Paulo (EPM-UNIFESP), São Paulo-SP, Brazil

#### Abstract:

**Objectives:** evaluate the posnatal outcomes of pregnancies with the prenatal diagnosis of congenital cystic adenomatoid malformation (ccam).

**Methods:** we conducted an observational retrospective study, based on information contained inmedical records of pregnant women with fetal ccam born in the hospital of the federal university of são paulo (unifesp-epm) between november of 2013 and july 2017. Gestational age, birth weight, delivery mode, apgar score, ph of the umbilical cord, days in the neonatal intensive care unit (nicu), neonatal complications, hospitalizations in childhood were evaluated.

**Results:** we analyzed data from a total of 9 fetuses with ccam. Mean maternal age was 27.6 years and 66.6% were not primiparous. All lesions were unilateral, without anomalies associated and 55,6% were at left lobe. The mean gestational age at birth was 40.0 weeks, and 78.0% of patients had birth above 40 weeks. Caesarean section was performed in 55.5% of cases. 55.5% of newborn infants were male and the mean weight at birth was 3397g, all fetuses with weight above 3000g.the mean of the 1 min apgar score was 9 and the 5 min was 9, and 100% of the fetuses showed 5 min apgar score above 9. The average umbilical cord ph was 7.24, and only 22% had a ph below 7.2. None of fetuses had to use of continuous positive airway pressure installed prophylactically in the delivery room. None of the newborns had infection during the neonatal period or days of nicu. Only 11% had hospitalizations during childhood because pulmonary infeccion. All children are alive, without complications and 78% are asymptomatic.

**Conclusions:** the newborns and children with ccam diagnosed in prenatal period has low rate of complications and excellente prognosis during childhood.

**Keywords:** postnatal, outcomes, cystic adenomatoid malformation

#### P-0165 | POSTER | PUBLIC HEALTH

#### DETERMINING SOCIETY'S OPINIONS TOWARDS PREMARITAL COUNSELING

<u>Elif Şahin</u>, Zübeyde Ekşi Güloğlu *Üsküdar University* 

Abstract:

**Objectives:** This descriptive study aimed to determine individuals' knowledge and opinions about premarital counseling and opinions.

**Methods:** The study was conducted between January 15 and May 15, 2016 with the people at İskele Meydanı (Pier Square), Üsküdar, İstanbul. The population included the males and females who were 18 years old or older. 439 people who accepted to participate in the study constituted the sample. The data were collected using a questionnaire form which included 21 questions and was prepared in accordance with the literature. After receiving the necessary permissions, the questionnaire forms were administered by the researcher to the voluntary people at the downtown of Üsküdar.

**Results:** 439 people participated in the study and 256 of them (58.3%) were females while 183 (41.7%) were males. Of the participants, 42.8% were married and 49.9% were single. Most of the participants obtained information in the premarital period by seeing a medical specialist (61%) and performing research on the internet (53.3%). More than half of the participants (60.4%) knew/heard about premarital counseling. The majority (69%) believed that this type of counseling is necessary. Half of the participants (52.8%) preferred family healthcare centers for receiving premarital counseling services and approximately half of the participants (48.1%) wanted to receive education during the engagement period. Most of the participants (57.6%) demanded that both premarital counseling and education be provided to the couples by a psychologist.

**Conclusion:** Considering the results of this study, it is recommended that public healthcare centers and public education centers be established at regions far from the hospital for ensuring that premarital education is comfortably provided to the people with easy access, these centers be used more actively, and gynecology nurses play more active roles in premarital counseling services.

**Key words:** Premarital counseling, nursing, education

#### P-0166 | POSTER | GESTATIONAL DIABETES

#### GESTATIONAL DIABETES DIAGNOSED BEFORE 20 WEEKS' GESTATION

<u>Noriko Odani</u>, Hiroshi Yamashita, Ichiro Yasuhi, Satoshi Isokawa, Megumi Koga, So Sugimi, MD Sachie Suga, Masashi Fukuda, Nobuko Kusuda Dept Obstetrics and Gynecology, NHO Nagasaki Medical Center

#### Abstract:

**Objective:** Gestational diabetes (GDM) is considered as mild maternal hyperglycemia during late pregnancy. However, the significance of mild hyperglycemia during early pregnancy (before 20 weeks' gestation) is still controversial. We investigated to identify the characteristics and significance of Japanese women with GDM who were diagnosed before 20 weeks' gestation.

**Methods:** This retrospective study included Japanese women who were diagnosed with GDM before 20 weeks' gestation (the early GDM [e-GDM] group) and those who were diagnosed at 24 weeks' gestation or later (the late GDM [l-GDM] group). We used IADPSG criteria to diagnose GDM. We compared the maternal characteristics and perinatal outcomes between the groups.

**Results:** We included 117 and 351 women in the e- and l-GDM groups, and the mean gestational age (GA) at diagnosis was  $13.7\pm4.3$  and  $28.0\pm3.1$  weeks, respectively. Maternal prepregnancy body mass index (BMI) in the e-GDM group was significantly higher than that in the l-GDM group (24.7±4.9 vs.  $23.0\pm4.6$ , p=0.002). Although fasting plasma glucose (PG) levels were also significantly higher in the e-GDM group (88.7±8.9 vs.  $84.3\pm10.8$  mg/dl, p<0.0001), there were no significant differences in the 1- and 2-hour PG values between the groups. The mean GA at the beginning of insulin therapy was  $21.1\pm7.3$  and  $30.0\pm4.6$  weeks in the e- and l-GDM groups, respectively. The rate of insulin therapy was higher in the l-GDM group (41.9% vs. 52.3%, p<0.05). The perinatal outcomes did not differ between the groups. When we compared in the obese subgroups (prepregnancy BMI ≥25), we found the prepregnancy BMI was significantly higher in the e-GDM group (31.6±4.7 vs.  $29.3\pm3.4$ , p=0.0016). However, there were no significant differences in the rate of insulin administration (52.4% vs. 65.6%, ns) or in the perinatal outcomes between the groups.

**Conclusion:** The Japanese women with GDM who were diagnosed before 20 weeks were more frequently obese than those who were diagnosed at 24 weeks or later. The findings suggest that early diagnosis and treatment intervention seemed to be beneficial in obese women with GDM.

#### P-0167 | POSTER | PUBLIC HEALTH

# BLOOD CONTAMINATION OF AMNIOTIC FLUID DURING AMNIOCENTESIS - INCIDENT, ACCIDENT OR COMPLICATION

<u>Costin Berceanu</u>, Doru Diculescu, Andrei Malutan, Razvan Ciortea, Radu Mocan-Hognogi, Mihaela Oancea, Marina Dudea, Carmen Elena Bucuri, Maria Patricia Rada, Dan Mihu *UMF Iuliu Hatieganu* 

#### Abstract:

Amniocentesis is the most commonly performed invasive prenatal diagnostic procedure. The relative simplicity of the method has made amniocentesis available in a large number of centres. Amniocentesis may increase the risk of fetomaternal hemorrhage (FMH) due to needle transfixation of the maternal abdomen skin to the amniotic membrane and sometimes the placenta.

There is an increase in FMH after performing amniocentesis, but there is no consensus regarding the best method to monitor the safety of these procedure. Flow cytometry immunophenotyping, using a monoclonal antibody against fetal hemoglobin, has become an interesting alternative to classical Kleihauer test to measuring FMH. Blood contamination of amniotic fluid (AF) during amniocentesis correlates directly with: needle thickness, physician experience, number of puncture points taken for sample acquisition, placental location. The puncture needle is recommended to have a thickness between 20-23 gauge (G). Maternal cell contamination is prevented by discharging the first 2 ml of each sample. Another factor affecting safety of amniocentesis is the volume of procedures performed by the operator. High volume experience is reported to have decisive impact on rates of procedure-related adverse outcomes

The impossibility of AF extraction at the first puncture requires its repetition, which increases the risk of AF contamination. From this point of view, it is extremely important to identify before the procedure the most voluminous AF bags, but also to choose a tract that avoids the transplacental passage. Placement of the placenta on the anterior wall increases the risk of AF contamination compared to the back or posterior wall location. Regardind the isoimunisation risc after amniocentesis, when a FMH occurs with less than 0.1 ml, isoimmunization at six months after delivery is 3%. Amniocentesis is safe to be carried out in fetal medicine when is followed by standard methods and conducted by trained professionals.

#### P-0168 | POSTER | PUBLIC HEALTH

# POSNATAL OUTCOMES OF FETUSES WITH THE PRENATAL DIAGNOSIS OF CONGENITAL CYSTIC ADENOMATOID MALFORMATION IN A REFERENCE SERVICE IN BRAZIL

Alberto Borges Peixoto, Amanda Pinheiro Loretti, Bruno Rodrigues Toneto, Raquel Margiotte Grohmann, Veronica Matos Moreira, Bruna Côrrea Beraldo, Tatiane Boute, Edward Araújo Junior, Luciano MM Nardozza, Liliam Cristine Rolo Paiato

Department of Obstetrics, Paulista School of Medicine – Federal University of São Paulo (EPM-UNIFESP), São Paulo-SP, Brazil

#### Abstract:

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**Conclusions:** the newborns and children with ccam diagnosed in prenatal period has low rate of complications and excellente prognosis during childhood.

**Keywords:** postnatal, outcomes, cystic adenomatoid malformation

# P-0169 | POSTER | NEONATAL HEALTH METABOLOMICS IN HEALTHY NEONATES IN WESTERN GREECE

<u>I. Giannakopoulos</u>, A.Tsintoni, M. Pogka, A. Koukouletsos, N. Malits, I. Koulouras, S.A. Chasapi, G.A.Spyroulias, A. Varvarigou

#### Abstract:

**Background:** Metabolomics represent a new and promising area of research in neonatology. To date, the method has been successfully applied to monitor the rapid metabolic changes after birth and to detect the metabolic responses that may be characteristic for specific neonatal disorders.

**Objectives:** The aim of our study was to develop a reference model of urinary metabolomics in healthy newborns up to their third day of life, taking also into account dietary effects, jaundice and exposure to tobacco smoke.

**Methods:** The study included 110 healthy newborns (GA 35 to 40 weeks) from the region of Western Greece. Urine samples were collected immediately after birth and at the end of the third day of life (DOL). Metabolic profiling of the samples was performed by <sup>1</sup>H-NMR spectroscopy. Statistical analysis was conducted in R environment, using in-house scripts.

**Results:** Principal component analysis showed that there were significant differences from birth to DOL 3 in the relative intensities of the assigned metabolites, such as betaine, glycine and taurine. Trends in differentiation of metabolites levels between the two spectral groups, late preterm and term newborns, were also observed.

**Conclusions:** Our preliminary data confirmed the rapid changes in the urinary metabolic profile after birth. Ongoing research will enable us to develop the reference model of urinary metabolomics in healthy newborns during the period of adaptation to the e

#### P-0170 | POSTER | NEONATAL HEALTH

# FEEDING PROBLEMS IN READMITTED NEWBORNS IN THE REGION OF VALJEVO, SERBIA

<u>Mladenovic M</u>, Dimitrijevic D, Markovic S, Pavlovic S. *General Hospital, Valjevo, Neonatal department* 

#### Abstract:

**Objectives:** Unplanned, unexpected readmission of previously well newborn is undesirable event, reflecting inadequate initial assessment of the newborn in the nursery, lack of parent's knowledge of early newborn care, or inappropriate outpatient care. According to literature, feeding problems are among the most common causes of newborn readmission, and may present as failure to thrive, gastrointestinal problems, jaundice and sepsis like syndrome. The aim of the study is to reveal feeding problems in readmitted previously well newborns in the region of Valjevo, Serbia.

**Methods:** After subtracted 46 premature or/and seriously ill newborns that were referred to tertiary hospital, we conducted retrospective study on 1302 medical records of previously well term or late preterm newborns born in regional hospital during 2016, looking for newborns readmitted to Pediatrician departure in General Hospital Valjevo for all causes. Among them, we searched for feeding problems. In presenting data descriptive statistic was used.

Results: Forty tree (3.30%) newborns were readmitted in hospital for all causes and among them 15(34.88%) were diagnosed with feeding problems. Many newborns (13) had multiple causes for readmission. All but one newborn were diagnosed with inadequate weight gain, eight (53.33%) with vomiting, two (13.33%) with excessive colic, two with breastfeeding jaundice, two with suspected cow milk intolerance and two with dehydration. All newborn were delivered near or at term, 11 (73.33%) vaginally and 4 with cesarean section. Eleven newborns were exclusively breast-fed, two were formula fed from the beginning, and in two formula was started 2 to 7 days before admission. Thirteen newborns (86.67%) were firstborn. All readmitted newborns were followed up from nursery discharge in outpatient settings .The average time for readmission was between 4- 10 day for jaundice and secondary dehydration, 6-15 days for vomiting, and 20 days for suspected cow milk intolerance, and average hospital stay was 2.47+-0.74 days.

**Conclusion:** Feeding problems were diagnosed in one third of all readmitted newborns, and in most cases were potentially preventable. In our study, the most prominent feeding problem was vomiting, and many neonates had multiple feeding difficulties, accompanied with inadequate weight gain. Being firstborn, delivered vaginally (with short nursery stay) and exclusively breastfed were most important risk factors for feeding problems. In this study we did not consider mothers education level. For preventing readmission in previously well newborns it is important to manage supportive interventions such as promotion of successful breastfeeding during pregnancy and nursery stay, and assessment for hyperbilirubinemia prior to discharge. Also, in Serbia, the primary pediatric care network in outpatient settings needs to be strengthened.

**Key words**: feeding problems, readmitted newborns

#### P-0171 | POSTER | CESAREAN SECTIONS

COMPARISON OF REGIONAL ANESTHESIA FOR CAESAREAN SECTION AND DECREASE OF ARTERIAL BLOOD PRESSURE DURING ADMINISTRATION OF MARCAIN 0,5% AND HEAVY MARCAIN 0,5%

M.Filev, M. Ristevski, A. Fileva

Abstract:

**Intrudoction:** There are used two different type of local anesthetics during regional anesthesia for caesarean section and comparison of side effects: drop of arterial blood pressure at both groups after application of anesthetics.

**Method and Material:** There examined 120 patients sepaeted into two groups and led with two anesthetics: Marcain 0,5% and Heavy Marcain 0,5% during six months period from 2015/2016.

**Case Report:** 120 patients with regional anesthesia separated into two groups, one group got Marcain 0,5% and the second group Heavy Marcain 0,5%. Blood pressure was measured in both groups before application of drugs and every five minutes afterwords till the end of anesthesia. Other parameters followed were: age, weight, height, heart rate and oxygen saturation.

**Results:** Arterial blood pressure of both groups is shown in the figures. It is clear that there is blood pressure decrease in both groups, but there is a difference showing that the decreased blood pressure occurred in 20 percent of patients in 0.5% Marcain and in 5% of patients who received 0.5% Havy Marcain.

**Conclusion:** Usage of Heavy Marcain 0,5% is more safe during regional anesthesia in patiens before caeserean section.

#### P-0172 | POSTER | NEONATAL HEALTH

#### EFFECTS OF PASSIVE SMOKING IN PRESCHOOL CHILDREN BORN LATE-PRETERM

Ayla Gunlemez, Ilkay Er, Canan Baydemir, Ayse Engin Arisoy, Ayse Sevim Gokalp

Abstract:

**Objective:** Late preterm delivery is known to be associated with potential adverse effects on lung development and may result in alterations of pulmonary function. Since lung development is a programmed process, its interruption may be associated with decreased efficiency of lungs and increased susceptibility to environmental risk factors such as infection or tobacco smoke. Increasing evidence suggest that passive smoking may also represent a significant risk factor for chronic respiratory morbidity in children. Furthermore, there is a paucity of data on lung physiology in late-preterm infants with a history of exposure to passive smoking who may already have an increased risk of impaired lung function during childhood. This study aimed to evaluate the effect of passive smoking on lung function tests in preschool children born late-preterm, using impulse oscillometry (IOS).

**Methods:** IOS is noninvasive and practical technique that is used to assess lung function. It can be easily employed in preschool children. While the patient is breathing normally, the IOS apparatus generates small pressure oscillations that are transmitted into the lungs to determine the impedance (Z) of the respiratory system. Pulmonary resistance (R) and reactance (X) are the components of Z. Pulmonary R represents the energy required to propagate the pressure wave through the airways and is a measure of central and peripheral airway caliber. Pulmonary X is the amount of recoil generated against that pressure wave and indicates the elastic recoil properties of the lung tissue. The study population consisted of a total of 139 children between 3 and 7 years of age born late-preterm who were being followed-up at our outpatient unit. Patients with systemic congenital anomaly and respiratory tract infection in preceding one month were excluded. Any inhaled medications were stopped least one month before the study. Late-preterms were subcategorized according to presence or absence of exposure to passive smoking (PS). Those with and without exposure to passive smoking were referred to as PS group and non-PS group, respectively. Resistance (R5-R20) and reactance (X5-X20) were measured by IOS at 5-20 Hz.

**Results:** There were 89 male and 50 female participants. Weight and height percentiles were within normal limits and the mean age was 67.4±15.8 months. There was no difference between the perinatal characteristics of PS and non-PS group.

Passive smoking history was present in 56.1%, n=78 of late-preterms. Positive maternal smoking history was present 38.5% and 3.6% of PS and non-PS subjects, respectively (p<0.001). Median R5-R20 and Z5 values of IOS were significantly higher and median X10 value of IOS was significantly lower in PS group compared to non-PS group (p<0.05).

**Conclusion:** Passive smoking known to be a major health hazard, seems to adversely affect lung function in children born late-preterm.

**Key words:** late preterm infant, lung function, passive smoking, impulse oscillometry (IOS)

#### P-0173 | POSTER | PREGNANCY OUTCOME

#### PREGNANCY AFTER THYROID GLAND CANCER: CLINICAL DILLEMA

Rankov O., Bogavac M, Golijan B, Ilić Đ, Vejnović T

#### Abstract:

Papillary carcinoma of the thyroid gland is rare before or during the pregnancy. The diagnosis indicates a pathognomonic ultrasound finding of the thyroid gland and pathohistological finding after aspiration biopsy of the thyroid gland or thyroidectomy. Malignant thyroid gland cells, or cells susceptible to malignancy, are a vital indicator for surgical treatment. The literature suggests controversial experiences regarding the progression of thyroid gland during pregnancy, that is, the impact of pregnancy on disease progression if malignant disease occurs in that period, as well as the outcome of that same pregnancy. The aim of this paper is to show the successful completion of pregnancy by Caesarean section, in patients with papillary carcinoma of the thyroid gland treated with medication, surgical and radio therapy.

Pregnant woman MN, aged 29 years in 39/40 weeks of gestation, was admitted to the Clinical Center of Vojvodina at the Clinic for Gynaecology and Obstetrics 2 years after the treatment of papillary thyroid carcinoma radical thyroidectomy, radiotherapy (131 - I 3.7 GBq), and ostoperative levothyroxine substitution therapy. Early amniocentesis of genetic analysis revealed a regular emale karyotype. During pregnancy, as in the peripartum period, she was controlled by endocrinologists and oncologists who suggested substitution therapy of levothyroxine 1x200 µg with regular control of thyroid hormone, indicating the euthyroid state. Anti TPO were not present in a significant titre, while Tg was immeasurably low in terms of delivery. The obstetric examination established the finding: a 2 cm long cervix, the leading part the head above the pelvic entrance with the preserved amnion. The patient was normotensive, normocardial and without contractions at the admission. The fetal tones revealed normal heart rate. An ultrasound finding indicated a pregnancy with adequate fetal water, a placenta of III degree of maturity, and the regular parameters of Doppler umbilical circulation. The CTG records during the stay in the pregnancy pathology department were physiological. Multidisciplinary team decided to terminate pregnancy by Caesarean section, which was performed by laparotomy by Cohen in terms of regular operative flow. The birth of the newborn was 3190 gr and 50 cm with Apgar score 9/10. Early post-operative period was uneventful, the patient was without subjective symptoms with normal heart rate, and normotensive. The therapy included preoperative antibiotic care, heparin therapy, and levothyroxine therapy. The patient was discharged with a recommendation for further follow-up with the endocrinologist and following oncologist's counsel - levothyroxine tab 1x200 µg with postpartum thyroid gland hormone control.

Pregnancy in people with papillary carcinoma of the thyroid gland is not contraindicated. The choice of therapy is total thyroidectomy with unilateral or bilateral resection of the lymph nodes of the neck and euthyreotic state, stable patient status is over-spectrum. The prognosis after the treatment of thyroid cancer is good and survival of the patient, with regular controls for a long time

The case report suggests that thanks to the multidisciplinary work of a gynaecologist, oncologist, endocrinologist, and internally pregnant after treatment of the papillary thyroid carcinoma, it can be successfully completed in the delivery term.

**Keywords:** thyroid gland cancer, pregnancy

#### P-0174 | POSTER | PREGNANCY OUTCOME

#### BREUS' MOLE AS A CAUSE OF INTRAUTERINE GROWTH-RESTRICTION

Capros Hristiana, Mihalcean Luminița

#### Abstract:

**History:** A 27- year- old gravida, gravida 2, para 0, was referred to the feto-maternal department for suspicion for placental abruption at 33 gestational weeks. The diagnosis of placental abruption was suggested by the specialist of ultrasound department. There were no abdominal or back pain, no vaginal bleeding, no uterine contraction. Normal vital parameters and normal fetal heart rate tracing were present. The transabdominal ultrasound demonstrated a small for gestational age fetus with EFW below 3<sup>rd</sup> percentile with normal Doppler on umbilical and cerebral vessels. The morphological fetal scan was normal. Placenta situated posteriorly with the presence of a circumscribed, heterogeneous intra placental mass 2.72x3.78cm, power Doppler demonstrated no flow within the mass. The patient received two days of corticoid therapy and was delivered by Caesarian Section. The hystopathological examination confirmed the diagnosis of sub chorionic thrombohematoma.

**Discussions:** Placenta imaging is included in all ultrasound protocols- first, second, third trimester of pregnancy. The normal placenta is presenting like a focal mass, with granular structure. In the first and second trimester, the normal placenta has homogeneous echogenicity, with some thin septa, surrounded by hypo echoic myometrium. In color Doppler exploration, blood flow distribution is parallel to the retro placental line. In the third trimester of pregnancy, venous lashes and calcifies appear, giving to the placenta a heterogeneous appearance. That is way the visualization of a abnormal placenta during a ultrasound examination is always thrilling because of differential diagnosis it emplace. Sure the most dangerous diagnosis is uteroplacental apoplexy that means important risk for fetal distress, impaired neurodevelopment, cerebral palsy and perinatal death and, in many cases, iatrogenic prematurity. The other differential diagnosis of placental tumors includes placental teratoma, hydatidiform mole, metastases, and leiomyoma. Another very rare cause of placenta heterogeneous mass is Breus's Mole or massive subchorionic thrombohematoma.

**Conclusion:** The prenatal diagnosis of placenta sub chorionic hematoma before delivery allows correct obstetrical planning and minimize potential neonatal or maternal morbidity and mortality. For both retroplacental hematoma and Breus' mole ultrasound imaging is a screening method.

#### P-0175 | POSTER | PREGNANCY OUTCOME

#### CASE STUDY OF FETAL DEATH DUE TO A TRUE KNOT OF UMBILICAL CORD

Gradimirka Mićunović, Snežana Grbović-Sekulić

Abstract:

**Introduction:** The high incidence of morbidity and mortality during the perinatal period (from 28 gestational weeks of pregnancy to 28 days after birth) creates the need to select pregnant women and fetuses who are at high risk as soon as possible so as to reduce risks that can lead to disability, mental retardation, as well as the death of the fetus. The stillbirth Collaborative Research Network recently reported that pathological changes and umbilical cord accidents (UCA) were associated with the death of the fetus in 15% of stillborn children. The true knots occur approximately in 1,2% of the pregnancies with the highest rate in monoamniotic twins. They are caused from the movement of the fetus and are more likely to develop in the middle of pregnancy when there is more water present and when there is greater mobility of the fetus. They are also associated with the mother's age, multiparity, chronic hypertension, gestational diabetes, length of the umbilical cord, and they occur more frequently in male fetuses. There is also a higher rate of fetal distress, the meconial water of the fetus, operative ending of the birth, as well as the antenatal death of the fetus. False nodes are more common and have no clinical significance.

Case report: Patient aged 37, regularly controlled in her fourth pregnancy. The previous three pregnancies and births went smoothly. Because of the years, non-invasive screening test (NIFTY test) was suggested and conducted. The patient was monitored during the pregnancy, in the 12th week of gestation, the following was conducted: screening-control of the nasal bone, frontomaxillary angle, nuchal and intracranial translucency, flow through the ductus venosus, as well as the control of tricuspid regurgitation. In the 18th week of gestation, umbilical cord insertion was examined. Moreover, expert 4D ultrasound examination and the re-examination CNS were conducted in the 33rd gestation week. In the 36th week of gestation fetus cardiotocography was done (base frequency of normal physiological range, undulatory oscillations of preserved variability). In the 37th week of gestation the patient came to the examination and informed the staff that she does not feel the movements of the fetus. Absence of cardiac activity of the fetus was diagnosed and birth was induced.

Results of the evaluation of the umbilical cord found the true knot of the umbilical cord with initial signs of maceration. An autopsy finding confirmed that apart from a change on the umbilical cord there was no pathological finding on the fetus and the placental tissue.

Conclusion: Taking into consideration UCA, high degree of the mortality of the fetus falls, the focus must be placed on ultrasonic evaluation (by using Doppler and possibly MRI) pathology of the umbilical cord, including length, layout, composition, insertion (fetal and placental), the number of blood vessels, twisting. Absence of twisting is associated with reduction in fetal movements, flow disorders through the umbilical cord and poor pregnancy prognosis. Hyperactivity of the fetus is associated with compressions of the umbilical cord. If UCA is detected, it is recommended to hospitalize the pregnant woman and to monitor heart rate of the fetus for 24 hours. Through an examination, the following should be excluded: abnormal insertion and structural abnormalities - cysts, pseudocysts, nodes, varicosity umbilical veins, hemangiomas, aneurysms, arterial hyperplasia, hematomas, spontaneous or iatrogenic, venous inscription as well as previa and prolapse. In the era of increased incidence of invasive diagnostic tests - the type of amniocentesis and cordocentesis - there is also a narrowing of the umbilical cord resulting because of the local absence of Wharton jellywhich damages the blood

vessels and narrows their lumen. Therefore, we can conclude that precise prenatal ultrasound imaging of umbilical cord morphology can greatly reduce perinatal mobility and mortality.

### P-0176 | POSTER | NEONATAL HEALTH

### **RISK FACTORS FOR NEONATAL SEPSIS**

Lekic E., Perovic M., Vukicevic J., Buric S.

Abstract:

**Objective:** Neonatal sepsis is defined as a generalized bacterial infection confirmed by positive hemoculture, followed by systemic signs and symptoms caused by presence of bacteria and its toxins in the body during the first 28 days of life.

**Methods:** The present study included 71 newborn infants diagnosed with sepsis. Out of 653 infants admitted from 01.01.2015 to 31.12.2015., 427 were born at term, and 227 were preterm infants. They were divided into two groups: one comprised of at term born infants with proven sepsis - 32 cases (7,5%) and second group were preterm newborns with neonatal sepsis - 39 cases (17,3%). We examined the causes of sepsis and pathogens dominance in group of Gram positive and Gram negative bacteria for each test group. Using the time of infection occurrence, neonatal sepsis was classified as manifest sepsis in the first 72 hours of life, sepsis in 4-7 days after birth, and sepsis in 8 to 28 days after birth. We investigated the risk factors originating from mother or newborn infants that affect the manifestations of the infections.

**Results:** In the group of at term newborn infants, sepsis occurred dominantly in first 3 days of life, while in the preterm newborn infants it was more often from the 4th day of life. The most frequently confirmed causes of all proven sepsis were *CoNS*, from Gram positive, and *Klebsiella pneumoniae* from Gram negative bacterial group. In the preterm newborn infants, most common causes of neonatal sepsis were *E. coli* and *Klebsiella pneumoniae* (identical incidence), followed by CoNS. In the at term born infants group, dominant causes of neonatal sepsis were *CoNS* and *S.aureus* (indentical incidence)from Gram positive group, and *Klebsiella pnaeumoniae* and *E coli* from Gram negative group, followed by *Pseudomonas*. Premature birth and low birth weight were among the most common neonatal sepsis risk factors. Maternal preeclampsia, PROM and perinatal asphyxia were also significant risk factors for neonatal sepsis.

**Conclusions:** Our data suggest that premature birth and low birth weight were among the most common neonatal sepsis risk factors. Maternal preeclampsia, PROM and perinatal asphyxia were also significant risk factors for neonatal sepsis.

**KEY WORDS:** Newborn infant, preterm newborn infant, neonatal sepsis, epidemiology, hemoculture, early onset sepsis, late onset sepsis.

### P-0177 | POSTER | PRENATAL NON INVASIVE TESTING

### NON INVASIVE PRENATAL TEST- PRESENT OR FUTURE

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### Abstract:

Fetal cell-free DNA (cffDNA) is a DNA that circulates freely in the mother's bloodstream, from the 5th week of pregnancy. It can be analyzed already on the 7th week of pregnancy and disappears from the mother's blood 2 hours after delivery. Previous studies have optimized the procedure for taking a blood sample of the mother after 10 weeks of pregnancy. Non-invasive prenatal testing is essential for families at high risk for hereditary genetic disorders, identification of fetal sex for carriers of X-linked diseases, in the sensitization of RhD negative mother, aneuplody, trisomy, microdelecia, identification of preeclampsia. It is estimated that the sensitivity of testing is between 96-100%, and the prevalence between 94-100%. The aim of the work is to highlight the importance of enacting legislation and professional guidelines for the use of current methods of prenatal testing and diagnosis.

**Methods:** The test is done from 10 ml of venous blood of the mother taken in the general procedure after 10 weeks of pregnancy. A further protocol includes "Massive Parallel Sequencing" for the analysis of DNA fragments and the exact calculation of the number of present chromosomes. In the continuation of the process, a special Safer (TM) method of counting baby chromosomes is used.

**Results:** In 2016, 1695 genetic prenatal tests were performed in BiH, of which 32 were positive (1.88%) and one disorder is related to X chromosome. Out of the total, we highlight the finding that is the result of an invasive and non-invasive method contradictory.

Sex Chromosome	Aneuploides Result	Interpretation
X0	Not detected	None
XXY	Detected	Follow up counselling and testing recommended
XXX	Not detected	None
XYY	Not detected	None

Cytogenetic analysis of cell culture of amniotic fluid showed a normal male karyotype. Non invsive test is not a diagnostic test, information an this report could only be used as reference, and BGI has no clinical responsabilities on false positive or false negative results occurred on those syndromes above

**Conclusion:** Several prenatal genetic tests are available in BiH and are interpreted as diagnostic tests. It is important to understand the possibility of these tests and the scope of their application, both by medical personnel and by future parents. Because of the non-critical "commercial" occurrence of prenatal genetic tests, they should not be translated without legal regulations and professional guidelines. Promotional material parts:

<sup>&</sup>quot;The test is safe, simple and highly reliable. " Be carefree! "

<sup>&</sup>quot;With simple blood extraction, I can avoid unnecessary and risky amniocentesis."

<sup>&</sup>quot;Over a million tests have been made around the world, and accuracy has been proven to 147,000 pregnant women"

Is that enough? Is it recommended to test? What conclusion can be made after the displayed finding, because in the end you are expected to conclude?

**Keywords**: Non invasive prenatal test, cffDNA, present, future.

### P-0178 | POSTER | CONGENITAL MALFORMATIONS

### PRENATAL DIAGNOSIS OF BILATERAL SCHIZENCEPHALY - THE VALUE OF FETAL AND NEONATAL ULTRASOUND AND MAGNETIC RESONANCE IMAGING

Gorana Juka-Kožul, Jasenka Zmijanac Partl, Ratko Matijević, Svjetlana Razum ,Katarina Bojanić

### Abstract:

Prenatal detection has increased the number of detected fetal anomalies compatible with long-term survival. Increased experience and improved technologies have augmented the ability to differentiate between specific central nervous system (CNS) anomalies. The purpose of this report is to present the prenatal diagnosis of a CNS anomaly. Fetal magnetic resonance imaging (MRI) was used as a complementary method to ultrasonography (US) in order to allow more precise diagnosis, better parental psychologic support and obstetric management.

The patient is a male term infant born to a 23-year-old G3P2→3 mother.

Prenatal history was remarkable for US suspicion of porencephaly at 28 weeks gestation. The US scan showed asymmetric ventriculomegaly (left lateral ventricle measuring 35  $\times$  35 mm, right ventricle within normal limits) and an unilocular cystic structure communicating with the ventricular system on the left side (figure 1).



### Figure 1: prenatal cranial US showing the parenchymal defect in the left hemisphere.

Additional prenatal diagnostics included TORCH, karyotyping and fetal echocardiography, all unremarkable. Fetal MRI confirmed the parenchymal defect, the unilocular cystic structure communicating broadly with the left lateral ventricle. From the right lateral ventricle a small fissure expanded into the the frontoparietal region indicating fetal schizencephaly (figure 2).

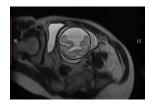


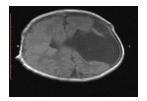
Figure 2: prenatal MRI showing the parenchymal defect in the left hemisphere.

On postnatal US in the region of the temporal lobe an anechoic structure extending to the meninges, measuring  $23.3 \times 35.1$  cm was present on the left side. The right ventricle was within normal limits, extending proximally. A thin corpus callosum was noted. Bilateral schizencephaly, predominantly on the left side was suspected (figure 3).



### Figure 3: postnatal cranial US showing the parenchymal defect in the left hemisphere.

Postnatally cranial MRI accurately showed the parenchymal defect in the left hemisphere, communicating broadly with the left lateral ventricle covered by pachygyric cortex which was diagnosed as "open lip" schizencephaly. On the right side a discrete cleft in the brain parenchyma communicating with right lateral ventricle was diagnosed as "closed lip"schisencephaly. Left thalamus was noted hypoplastic and a thin corpus callosum was seen (figure 4).



### Figure 4: postnatal MRI showing the parenchymal defect in the left hemisphere.

There was no need for surgical intervention, US follow up was recommended. Further neurodevelopmetal habilitation was needed. This case report presents the prenatally diagnosed schizencephaly case. We found that fetal MRI is a useful adjunct tool for differentiating and making precise diagnosis of cystic brain anomalies. Ultrasound diagnosis is still the "gold standard" for prenatal diagnosis. However, in this case it did not give us the precise initial diagnosis of porencephaly. We were aware of the broad spectrum differential diagnosis of cystic brain lesions. Fetal MRI was performed in order to make the diagnosis more precise. Postnatal work-up confirmed the prenatal intracranial findings. However the most accurate visualization of the fetal brain was made by MRI imaging following birth of the newborn. Careful characterization brain cystic lesion improved prenatal counseling and allowed better insight into long- term prognosis and management of the newborn.

### P-0179 | POSTER | CONGENITAL MALFORMATIONS

### MALROTATION IN CONGENITAL DIAPHRAGMATIC HERNIA: IS IT REALLY A PROBLEM?

K. Heiwegen, J. Van Ling, I. de Blaauw, Botden

Abstract:

**Objectives**: Congenital diaphragmatic hernia (CDH) has been associated with other congenital malformations. Intestinal rotation abnormalities are relatively common in CDH, due to abnormal rotation of the midgut. The incidence of malrotation in CDH patients has been previously described. However, there is no standard evaluation and treatment of malrotation during initial CDH repair. This study evaluates risk factors for co-existence of an intestinal malrotation in CDH patients, its initial treatment and whether they can cause any further abdominal problems.

**Methods**: All patients with a CDH treated in a high volume center between 2000 and 2015 were retrospectively evaluated. Demographics, CDH specific characteristics, surgical treatment, and short/long term abdominal outcomes were described. Specific outcomes were malrotation at initial CDH repair, malrotation during follow up and occurrence of small bowel obstruction. All (surviving) patients had a minimum follow up of 18 months. Differences were calculated using the independent student's T-test or Mann-Whitney *U* test for continuous variables and chisquare or Fisher exact tests for categorical data, as appropriate.

**Results**: In total 215 patients were included, of which 197 were surgically repaired. In 76 (39%) a malrotation was described at initial CDH repair, in 39 (20%) a normal rotation, but in 82 patients (42%) there was no report on intestinal rotation. There were no significant differences between these groups regarding demographics. During follow-up (range 1.5-16 years) twelve additional malrotations were diagnosed, leading to 45% (n=88) prevalence. These were diagnosed due to acute small bowel obstruction, of which three had a volvulus. More than half of these missed malrotations (58%) required acute surgery for treatment of malrotation, compared to only two of the initial 76 patients (p<0.001). Patient with no report on rotation of the intestines were most likely to develop small bowel obstruction and require surgery during follow up (table 1).

A subanalysis showed that in this patient cohort, 174 patients had Bochdalek hernia, 13 patients an eventeration, 7 patients a Morgagni hernia, two patients had pentalogy of Cantrell and one unknown. A malrotation was eventually evaluated in 45% of Bochdalek hernia patients, 23% of the eventeration patients and 86% of Morgagni patients (p=0.03).

**Conclusion**: Intestinal malrotation is associated with congenital diaphragmatic hernia, with a prevalence of at least 45%. It is clear that a missed malrotation has a very high risk on small bowel obstructions and acquiring acute laparotomy. Therefore, it is extremely important to diagnose and treat malrotation in CDH patients to prevent acute small bowel obstruction, including volvulus.

Table 1. Abdominal outcomes and surgeries in CDH patients

Abdominal outcomes in CDH patients, n (%)	Malrotation at initial surgery (n=76)	Normal rotation described at initial surgery (n=39)	No rotation described at initial surgery (n=82)	P-value
Small bowel obstruction	10 (13.5)	2 (5.1)	18 (22.2)	0.04
Surgery for small bowel obstruction	7 (9.5)	2 (5.2)	18 (22.2)	0.01
Surgery for malrotation - Elective - (semi)-acute	76 (100) 74 (97.4) 2 (2.6)	0 (0)	12 (14.6) 5 (41.7) 7 (58.3)	<0.001

**Keywords:** congenital diaphragmatic hernia, malrotation, small bowel obstruction

### P-0180 | POSTER | CESAREAN SECTIONS

# SCORE TO ESTIMATE THE CHANCE OF SUCCESS OF TRIAL OF LABOR AFTER CESAREAN INCLUDING DATA OF LABOR COURSE

<u>Luis Carlos Machado Junior</u>, Talitha Alves, Araújo, Jorge Washington Zamboni, PedroFerreira Awada, Eduardo Brosco Famá, Marcus Vinícius Ferreira, Heráclito Barbosa de Carvalho

### Abstract:

**Introduction:** There is much discussion about the advantages/disadvantages of a trial of labor after cesarean (TOLAC). Literature shows a slight greater risk for mother/neonate in TOLAC compared with repeat cesarean. However, when vaginal delivery is achieved, the outcomes are better than in repeat cesarean. Some data suggest, as we could expect, that the greater the likelihood of success, the lower the risks associated with this trial. Hence the utility of scores of probability of successful/failed TOLAC.

**Objective:** To build two scores for risk of failed TOLAC to be applied at admission in labor and three hours later.

**Methods:** It was conducted a nested case-control study with the live births to women with one previous cesarean assisted in a public teaching hospital in Brazil, admitted in spontaneous labor, who were submitted to TOLAC. Were excluded: preterm births, non cephalic presentations, multiple pregnancies and fetal malformations. Were considered cases the failed TOLAC, and controls the trials that resulted in vaginal births. Were accessed the association of cases with 20 variables, through qui square test for categorical variables and t test for continuous variables. Association was defined as p < 0.05. The associated variables were then tested in two models of multivariate analysis to build the two scores. The scores were internally validated, and two receiver/operator curves were created.

**Results**: Were included 260 TOLAC. Were found ten variables that were associated with the cases. Since we had 42 cases (83.8% success rate), we were limited to utilize only four variables for each score. In the score for admission, were utilized: presence of hypertensive disease (chronic, preeclampsia or superimposed preeclampsia: diminishes the chance), fundal height as continuous variable (the greater, the smaller the chance), history of previous vaginal birth (increases the chance), and dilatation at admission (the greater, the greater the chance) as continuous variable. For the score to be applied three hours later, were utilized: presence of hypertensive disease, fundal height as continuous variable, membrane status (ruptured increases the chance) and difference in dilatation as continuous variable (the greater, the greater the chance), both three hours after admission. Both scores showed good performance in the received-operator curve: area under curve of 73% for the one to be applied at admission and 84% for the one to be applied three hours later. Both scores were translated into nomograms that can be easily utilized by the clinician to estimate the likelihood of success for each case.

**Conclusion:** Both scores showed a good performance to assess the likelihood of success/fail of TOLAC. Hypertensive disease and fundal height fitted well in both. One of the scores performed better than scores built by other authors utilizing much larger samples, probably because we also included data until three hours after admission. We believe that, after this interval, there is still time to take a decision for intervention as to avoid long labors that end in emergency cesarean. Selecting the cases with greater chance of success will probably lower the risks of TOLAC.

**Keywords:** Trial of labor, Repeat cesarean, Delivery obstetric, Vaginal delivery, Hypertension pregnancy.

### P-0181 | POSTER | NEONATAL HEALTH

### PREMATURE INFANT AS A PATIENT

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#### Abstract:

**Objective:** Thissearchexamines the structure of hospitalized preterm infants based on their gestational age, birth weight, Apgar score, and diagnoses due to which the preterm infants were hospitalized.

**Method:** The research took place at the Center for Neonatology of the Clinical Center of Montenegro, between January 1, 2013 and December 31, 2013.

**Results:** During this period of time 617 newborns were hospitalized. 38% of the hospitalized children were born preterm. There was no statistically significant difference based on the gender of the preterm infants. The highest number of hospitalizations occurred in the first day of life. 81.4% of the hospitalized infants from twin pregnancies were preterm infants, while the median gestational age of hospitalized infants from twin pregnancies was 33 gestational weeks. Perinatal asphyxia was the diagnosis in 32% of hospitalized preterm infant, respiratory distress in 31%, while 15% of them were hospitalized only due to preterm birth.

**Conclusion:** Prematurityis a significant cause of morbidity and mortality at the neonatal stage as well as in children in general. Considering the fact that preterm children are the most vulnerable group of infants and require a specific approach in care and therapy, and given that they make a considerable share in the total number of children treated at the neonatal centers, a clear objective of the efforts of health care providers and the society in general, must be prevention of the preterm births.

**Key words**: preterm, morbidity, hospital admissions

### P-0182 | POSTER | INDUCTION OF LABOR

# PREINDUCTION ASSESSMENT OF CERVICAL LENGTH ON THE PREDICTION OF THE MODE OF DELIVERY AND ON THE FAILURE OF INDUCTION IN TERM PREMATURE RUPTURE OF MEMBRANES AND UNFAVORABLE CERVIX

Nada Aracic, Petar Poljak

Abstract:

**Aim:** To evaluate the value of preinduction sonographic measurement of cervical length (CL) as a prediction factor for assessment of the mode of delivery (vaginal, cesarean section) and the risk of cesarean section (SC) considered as a failure of induction in women with premature rupture of membranes (PROM) at term and unfavorable cervix, undergoing induction of labor (IOL) with Dinoproston gel.

**Methods:** A prospective study involved 60 nulliparous and 60 multiparous women with singleton pregnancies at term admitted for IOL. Preinduction CL was measured and delivery outcomes were recorded. Data were analyzed by T-test,  $\chi 2$  test, Mann-Whitney, ANOVA and receiver-operating characteristic curve.

**Results:** Nulliparous women were younger than multiparous  $(26,7\pm5,1\ vs.\ 30,6\pm4,8;\ p<0,001)$ , had a longer preinduction CL  $(36,5\pm5,5\ vs.\ 31,6\pm4,7;\ p<0,001)$  and a longer induction-delivery interval  $(590\ vs.\ 410\ min;\ p<0,001)$ . There was no difference in the mode of delivery, CS indications, neonatal weight, neonatal intensive care unit admission and perinatal death in respect of parity. CL was significantly shorter in vaginal vs. cesarean deliveries regardless of parity  $(32,\ 1\ vs.\ 38,\ 9\ mm,\ p<0,001)$ . Cut-off value of CL for predicting CS as a failure of induction was  $35,\ 5\ mm$ .

**Conclusions:** Transvaginal sonographic measurement of CL provides a useful prediction of the likelihood of failure of induction in women with PROM at term and unfavorable cervix.

**Key words:** Cervical length, labor induction, prostaglandins

### P-0183 | POSTER | HIGH RISK PREGNANCIES

# STUDY OF HIGH RISK SCORING IN PREGNANCY AND PERINATAL OUTCOME AT DR V M GOVERNMENT MEDICAL COLLEGE, SOLAPUR

Naval Milind Shah, Vidya R. Tirankar, Pradeepkumar S. Jadhawar, Nishita Solapur

Abstract:

**Background**: Women form the centre of the family and their health is of prime importance to the well being of the whole family. A relatively small percentage of high risk obstetric population gives rise to a disproportionately high percentage of perinatal and maternal morbidity and mortality. Scoring the risk factors will be of immense help to detect high risk pregnancies earlier and to optimize their management. In our study we use a simple and easily applicable risk scoring system for detection of high risk pregnancy and to find the correlation between the various degrees of risk and perinatal outcome. Such a scoring schedule will facilitate early detection, proper resource allocation, planned management and timely referral of high risk antenatal women and thereby reduces perinatal morbidity and mortality.

Methods: 8264 Pregnant women with gestational age more than 28 weeks reporting to the labour room at our institute during the study period between November 2013 to October 2015 were recruited regardless of their booked/unbooked status, age, parity, socioeconomic status, associated diseases or complications etc. Careful history was elicited, followed by thorough general, systemic, obstetric examination and relevant investigations to determine the risk factors in each case. The observations were recorded in prenatal scoring form based on scoring system suggested by Dutta and Das which itself is a modification of the high risk scoring system proposed by Coopland et al in Manitoba and individual risk scores were calculated Subsequently the outcome for the mother in terms of (1) Mode of delivery and (2) Complications like postpartum haemorrhage, perineal tears, wound infections, sepsis and mortality were studied. The perinatal outcome variables studied, for the babies were (1) Birth weight (low birth weight defined as < 2500 gms, including both pre-term and SGA), (2) APGAR score at one and five minutes (3) Birth asphyxia, diagnosed by APGAR <3 at one and five minutes after birth and acidemia (umbilical artery Ph <7) and (4) Perinatal mortality (intrauterine deaths, still births and early neonatal deaths upto seven days of life).

**Results**: Out of the total 8264 cases studied, 32% were graded as low risk, 39.89% as moderate risk and 28.11% belonged to high risk. The need for operative intervention increased with increasing risk score of the mother. It was 71.84% in case of high risk group, where as it was 51.93% and 38.66% in moderate and low risk groups respectively. Perinatal mortality was exclusively found in high risk group. Out of the 1025 cases of perinatal deaths in high risk group, 123 were intra uterine death, 5 were still births and 897 were early neonatal death accounting to perinatal mortality rate of 402.27 per 1000 live births in the high risk group. Perinatal complications were seen only in 11.5% and 15.3% in low and moderate risk groups respectively.

**Conclusions**: There is a significant correlation between high risk and poor perinatal outcome. The present study showed that through scoring the risk factors, it is possible to identify the mothers who are expected to contribute to poor pregnancy outcome.

### P-0184 | POSTER | PUBLIC HEALTH

### THE ROLE OF LOW AND HIGH BIRTH WEIGHT ON WOMEN'S REPRODUCTIVE HEALTH

L. G. Nazarenko, N. S. Nestertsova

#### Abstract:

**Objective:** The development of ideas about fetal programming makes it possible to explain the origins of a number of extragenital diseases from a perspective of the effects of depletion of the compensatory mechanisms of the body in early stages of ontogenesis. The increasing frequency of birth of infants with low weight due to an intrauterine retardation or premature birth justifies the urgency of defining more precisely the characteristics of the menstrual and reproductive function in women who were born with low birth weight (LBW). For the purpose of understanding the significance of this relationship, an alternative group and a study of the relevant aspects in women who were born large for gestational age (LGA) are of interest.

**Materials and methods:** 122 clinical observations of apparently healthy women of reproductive age were studied, with 53 of them (group I) born with a weight of 2,500 g and less and 69 (group II) with a weight of 4,000 g or more. Characteristics of the menstrual function, a spectrum of gynecological pathology, and the need for therapeutic and surgical intervention were assessed.

**Results:** The groups were homogeneous by age, social status, ethnic composition, and economic status. Late menarche was detected in 9,4% of the LBW women, which was nearly twice as high than the general population frequency (5,7%), and in 7% in the group of women who were born LGA. None of the women under observation reported an early onset of menstruation or the presence of signs of premature puberty. Infertility was noted by 24% in group I and by 13% in group II of the women. 19% of the LGA women and 16% of the LBW women reported menstrual disorders. The frequency of gynecological pathology requiring surgical intervention was 22% and 16% in groups I and II, respectively. Thus, as we have shown, deviations from the average parameters at birth correlate with hormonal-metabolic disorders and genital pathology that do not respond to conservative treatment, which is especially important in the case of LBW. This fact is consistent with literature data that LBW children have a higher incidence of gonadal dysfunction and sexual maturation deviations (SE Wennerstrom et al., 2015). There is no agreement of opinion on specific forms of this pathology. On the one hand, the relationship between LBW and early puberty has been demonstrated (Ibanez L. et al., 1999). On the other hand, it was noted that LBW girls reach timely puberty, but later this process progresses at a faster rate (Ibanez L. et al., 2007), and this is due to the fact that the prenatal period is the most dynamic for ovarian development.

**Conclusions:** The obtained data on sexual development retardation and a high incidence of subsequent infertility in LBW women is consistent with the literary data reflecting the parallelism of women's ability to conceive with mass-growth parameters at birth. Mechanisms for the formation of interrelations need separate research.

**Key words**: Low birth weight, large fetus for gestational age, gynecological pathology, infertility.

### P-0185 | POSTER | LABOR

### COMPARISON OF DIFFERENT DOSES OF INTRAUMBILICAL OXYTOCIN ON THE THIRD STAGE OF LABOR

Nurul Islamy, Nuswil Bernolian, Firmansyah Basir, Theodorus

Abstract:

**Background** Postpartum hemorrhage (PPS) is one of cause the maternal mortality. Active management of the third stage consists of the injection of oxytocin 10 IU intramuscular (IM), massage of uterine fundus and cord traction to accelerate the delivery of the placenta. Intraumbilical oxytocin can significantly shorten the duration of the third stage, reduces bleeding, and decrease the incidence of retained placenta

**Objective** To compare the dose of oxytocin injected intraumbilicall towards the duration of third stage, volume of blood loss, hemoglobin and hematocrit.

**Methods** This study is a prospective randomized study with a control. The control group was given an intramuscular injection of 10 IU oxytocin. Intervention of the 3 groups intraumbilical oxytocin treatment dose of 10 IU, 20 IU and 30 IU diluted in 50 ml of normal saline solution and administered intraumbilically. The sample selection by purposive sampling and the distribution group based on systematic random sampling (10 samples each). Data taken from the period April 2016-January 2017 with the inclusion and exclusion criteria. Data were analyzed using Chi-square, T-test, ANOVA and Post hoc tests.

**Results** Characteristics study for variables of age, occupation, parity, education, episiotomy and neonates weight showed homogeneous characteristics. The mean duration of the third stage for all groups was between  $366.7\pm159.0$  seconds and  $440.1\pm244.99$  seconds. While the average number of postpartum hemorrhagefor all group  $61.894\pm226.3$ ml and  $309.5\pm110.26$  ml. There were no differences in the dose of oxytocin on the duration of third stage (p> 0.05) and the amount of bleeding (p> 0.005). There was difference of hemoglobin between intervention group of oxytocin dose of 10 IU and 30 IU intraumbilical (p = 0.031). There was no difference between the mean hematocrit levels between the groups (p> 0.005).

**Conclusions** There were no differences in the dose of oxytocin intraumbilical towards the duration of third stage, the amount of bleeding and hematocrit levels. The decrease of hemoglobin greater in 30 IU intraumbilical significantly.

**Keywords**: Oxytocin intraumbilical, duration of the third stage, the amount of bleeding, hemoglobin and hematocrit.

### P-0186 | POSTER | PUBLIC HEALTH

### CHALANGES DEVELOPED POST INTERVENTION IN TRANSGENDER REASIGNMENT SURGERY- A CASE PRESENTATION

Oana Martis, Elzahra Ibrahim, Geraldine Gaffney

### Abstract:

We are presenting the case of an Irish adult 31 years old 46XY, who underwent a transgender reassignment surgery from male to female in Thailand in 2017, and who presented post-op in different emergency institutions complaining with pelvic pain, rectal bleeding, neovagina green discharge and spotting. The peculiarity of the case is that in Ireland this type of surgery are not done and no subspecialist exists in this field, the patient was the first one admitted in the department of obstetrics and gynecology all though she was 46xy. The gynecologic exam revealed a normal perineum well healed, Labia Major present, clitoris present, tight vagina and dry unable to do a speculum exam or bimanual examination, the neovagina is to tight and to painful for the patient. The laboratory analysis are normal, vaginal swabs clear, urinary culture revealed Klebsiella neumoniae, kidney computed tomography (CT) scan was normal, developed an allergic reaction to the contrast substance, MRI: There appears to be a fistula extending from the right side of the vagina to the skin surface at the 9 o'clock position. Surgical conservatory treatment was indicated, antibiotic therapy for the urinary infection. The patient went home in day 5, the pelvic pain where persistent 3/12 post op, despite 5 courses of antibiotics and AINS, referred to a specialist in UK to repair the fistula. In the last decade this type of procedure increased the majority of the procedure are done in Thailand and USA in private hospitals, the patient sent home in day 5 post op in their country, the majority of the late complications needed to be resolved in public hospitals. It is necessary the sensitize the doctors and nurses, implementation of courses in this field and to developed a good collaboration between the urology-gynecology-endocrinology-radiology-genetician-psychiatry.

Keywords: transgender reassignment surgery, fistula, neovagina

### P-0187 | POSTER | CANCER AND PREGNANCY

### AN INTERESTING CASE OF GIGANTIC OVARIAN CYST

Martis O, Keenan M, Ibrahim E, O'Leary M

### Abstract:

Ovarian cystadenofibromas are relatively rare benign tumors that contain both epithelial and fibrous stromal components. They account for 1.7% of all benign ovarian tumors. We present a case of a 65 year old postmenopausal woman with a 40 L ovarian cystadenofibroma with associated ascites and walking disturbance. The particularity of the case was the new approach of fluid drainage from a laparoscopy port. The patient was admitted for urgent total abdominal hysterectomy, bilateral salpingo-oophorectomy. The procedure was 3 hours and 40 L of fluid was drained directly from the cyst with the new method without any leakage or visceral injuries. Post-operatively, the patient's bodyweight reduced from 78kg to 38kg. Her mobility was limited to wheelchair use because of altered centre of balance. Physiotherapy will be particularly important to adapt the new centre of balance and learning to walk again. The new method used allows elegant approach and can easily solve difficult case of large ovarian cysts.

Keywords: cystadenofibroma, benign ovarian tumors

### P-0188 | POSTER | PREGNANCY OUTCOME

### INTRAUTERINE TRANSFER OF CAMPYLOBACTER JEJUNI CAUSING FETAL SEPSIS AND NEONATAL DEATH

R.Solberg, E.Margas, W.Daetz, A.P.H.Dyrbekk, N.Grude

#### Abstract:

**Objectives**: Worldwide *Campylobacter jejuni* is one of the most commonly identified bacterial causes of acute gastroenteritis characterized by diarrhea, fever and abdominal cramps. The microbe is carried in the intestine of many wild and domestic animals, particularly avian species, but is also found in unpasteurized dairy products. In pregnant women gastroenteritis with campylobacter can cause fetal miscarriage and life-threatening infections. Diagnosing campylobacter infections in the pregnant women and antibiotic treatment can be lifesaving for the child.

**Case Report:** Mother, age 32, para zero, got at gestational age (g.a.) 27weeks (w) severe abdominal pain after a restaurant meal containing poultry. In the following week, increasing diarrhea, vomiting and abdominal cramps. Hospital admission at g.a. 29w. Normal fetal ultrasound and gastroscopy of the mother, stool was not examined. Total weight loss 10 kg before recovery. Normal prenatal care examination at her resident hospital at g.a. 32w. Admitted 4 days later due to less fetal movements. CTG showed heart frequency 180-190/min and a decreased variability. Delivered by acute Cesarean Section (CS). In need of cardiopulmonary resuscitation, ventilator- and surfactant treatment. Antibiotic treatment after blood culture was drawn. Transitory self-breathing. aEEG showed low voltage and bust suppression. Gradually deterioration, seizures and bradycardia. Died after 5 hours.

**Methods:** Neonatal death after acute CS gave rise to extensive investigation, e.g. blood culture from mother and child, blood count, biomarkers of asphyxia, PCR in blood and feces, placenta histology, aEEG,

**Results:** Child: Severe intrauterine fetal sepsis. Growth of *Campylobacter jejuni* in blood culture taken after birth. At autopsy *Campylobacter jejuni* DNA (PCR) was determined in lung tissue. Placenta (503 g) showed focal acute villitis.

Mother: CRP 105 at admission. *Campylobacter jejuni* DNA determined in feces (PCR) and then growth of *Campylobacter jejuni* in feces.

**Conclusions:** *Campylobacter jejuni* infections during pregnancy can cause fetal death, miscarriage and life-threatening infections and in this case fetal sepsis and neonatal death. Information to the community, and especially expecting mothers, about foodborne illnesses in pregnancy. It is crucial to get increased attention towards risks associated with consumption of un-pasteurized milk products, contaminated water or meat to prevent fetal sickness and damage. Early diagnosis and antibiotic treatment can be lifesaving.

### P-0189 | POSTER | PUBLIC HEALTH

### THE REGIONAL PECULIARITIES OF PERINATAL AND NEONATAL MEDICAL CARE: THE EXPERIENCE OF SURGUT CLINICAL PERINATAL CENTER

S. Nefedov, L. Belotserkovtseva, L. Kovalenko

#### Abstract:

The infant mortality rate in Russia has decreased significantly during the last years and reached 6.0 per 1000 live birth. According to the statistics the main causes of mortality during the first year of life are conditions of perinatal period, congenital abnormalities, perinatal asphyxia, SIDS or other environmental conditions. In the article below we have described organizational and some contemporary perinatal technics and approaches are used in Surgut clinical perinatal center which have their effect on neonatal and infant mortality and morbidity.

The Surgut clinical perinatal center is one of the largest in Russia and the largest in Khanty-Mancy region with more than 9000 births per year during the last three years, which is almost 50% of all birth in the region. Centralization of preterm birth and extremely preterm birth in local perinatal center is as high as 85% and 92% respectively. Use of tocolytics during pregnant women transportation and afterwards in obstetrics department made it possible to achieve antenatal glucocorticoid prophylaxis rate up to 74% and 79% in case of preterm birth and extremely preterm birth respectively. Contemporary neonatal nursing in delivery room and in NICU have influenced some important indication if neonatal morbidity and mortality: frequency of surgical NEC, severe IVH (III-IV), ROP, PDA have decreased in three years period at 12.5%, 17.3%, 7.5%, 9.8% respectively, meanwhile the rate of BPD have increased at 18.8% among all preterm neonates. For a comprehensive assessment of fetus during labor and neonate immediately after birth CTG, scalp-test, cord blood sampling is widely used for recognizing intrapartum asphyxia, the rate of severe asphyxia was 1.3 per 1000 live birth in 2016. The development of neonatal surgery in PC made it possible to avoid unnecessary and unsafe transportation of neonates with surgical diseases. Implementation of all of this approach have let us achieve infant mortality rate as low as 3.2 per 1000 live birth in the impact area of Surgut clinical perinatal center in 2016.

### P-0190 | POSTER | PUBLIC HEALTH

### CHARACTERISTICS OF MORBIDITY OF PRETERM INFANTS IN RELATION TO THE BIRTH WEIGHT

<u>Sandra Burić</u>, Lidija Banjac, Rada Rudanović, Danojla Dakić, Envera Lekić, Ljubinka Dragaš, Mira Rudanović Perović, Jelena Vukićević Clinical Center of Montenegro

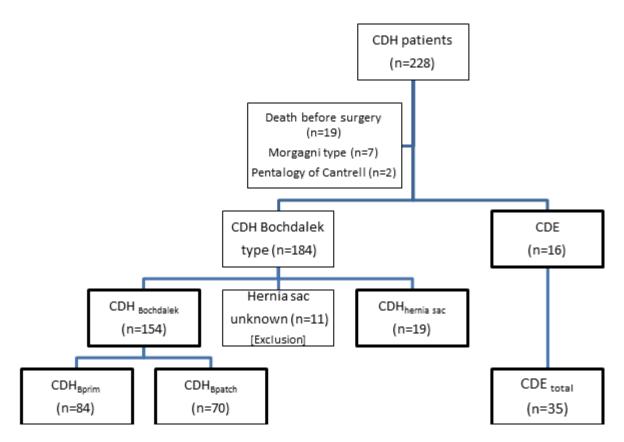
#### Abstract:

**Objective**: Determine, analyze, and compare morbidity and mortality of preterm infants in relation to their birth weight.

**Method**: The research has been conducted among the group of preterm infants hospitalized at the Center for Neonatology of the Clinical Center of Montenegro, between January 1, 2013 and December 31, 2013. The infants were divided into 4 groups, based on their birth weight and performed comparation of group incidence of complications and mortality.

Results: During the period observed, the total number of hospitalized infants was 661, out of which 30,1% were born before the 37th week of gestation. The average gestational age in this group of infants was 32.69 weeks. Half of them were infants of birth weight of 1500g-2500g (53.3%), and one quarter (24.1%) were infants above 2500g. Infants with SGA were found only among the group of infants weighing from 1000-1500g (15.4%) and in the group weighing from 1500-2500g (4.7%). Observed in relation to their birth weight, there was no significant statistical difference among infants from different types of conception, number of fetuses, and types of delivery. Analysis of the most common complication among preterm infants found that RSD is statistically less present in the group of them with BW higher than 2500g. In the group of infants with BW less than 1000g, only 2 subjects had NCPAPrespiratory support, while more than 80% of infants in the same group had mechanical ventilation. The length of NCPAP and mechanical ventilation received did not vary significantly among the groups, while with the increase in BW, a statistically significant reduction in the application of diffuse oxygen therapy has been observed. Among the infants of different BW, there was no statistically significant difference when it comes to incidence of sepsis. The incidence of ROP was significantly higher in the groups with BW of 1000-1500g (53.8%) and 1500-2500g (41.5%) when compared with the groups with BW lower than 1000g and with BW higher than 2500g. Statistically significant difference in the length of hospitalization among the groups with different BW was observed, in NICU as well as in the total duration of hospitalization. With the increase in BW of infants, the length of time spent in NICU was decreased as well as the total length of hospitalization. The group comparison showed that there was no statically significant difference in mortality only between the 1500-2500g BW group, and group with BW greater than 2500g, while between all other groups it was statistically significant. The highest mortality rate was in the group of infants with BW lower than 1000g (78.9%), and in the group of infants with BW greater than 2500g lethal outcome was not present.

**Conclusion:** Preterm birth is characterized with immaturity of all organs and organ systems, and this immaturity is present in various degrees. With technological development the survival rate of even the most immature infants has increased, and depending on the degree of immaturity and the applied treatment, complications of preterm birth occur. These complications manifest themselves early – immediately after the birth, and later in life. **Key words:** preterm infant, complications



 $CDH_{Bochdalek}$ : congenital diaphragmatic hernia, Bochdalek group, without hernia sac;  $CDH_{hernia\ sac}$ : congenital diaphragmatic hernia, Bochdalek type, with hernia sac

Table 1. Treatment of CDE<sub>total</sub> versus CDH<sub>Bprim</sub> and CDE<sub>total</sub> versus CDH<sub>Bpatch</sub>.

Tuble 1: Treatment of abblidial versus abribpinii and abblidial versus abribpatch.								
Treatment, n (%)	$CDE_{total}$	$CDH_{Bprim}$	P-value	$CDH_{Bpatch}$ (n=70)	P-value			
	(n=35)	(n=84)						
Pulmonary	13 (41)	25 (33)	0.47	51 (85)	< 0.001			
Hypertension <sup>1/1</sup>								
Use of inhaled Nitric	9 (27)	21 (26)	0.88	46 (68)	< 0.001			
Oxide <sup>2/2</sup>								
ECMO	5 (14)	12 (14)	1.00	47 (7)	< 0.001			
Non-closure of	2 (6)	10 (12)	0.50	31 (46)	< 0.001			
fascia <sup>2/3</sup>								
Abdominal patch <sup>3</sup>	1 (3)	3 (4)	1.00	24 (34)	< 0.001			

ECMO: extracorporeal membrane oxygenation

Missing CDE<sub>total</sub> and CDH<sub>Bprim</sub>: 112, 25, 31 Missing CDE<sub>total</sub> and CDH<sub>Bpatch</sub>: 113, 24, 36

**Keywords**: congenital diaphragmatic eventration, congenital diaphragmatic hernia, congenital malformation, hernia sac

### P-0192 | POSTER | NEONATAL HEALTH

### IS THE INDUCTION OF LABOR A SAFE OPTION AFTER CESAREAN SECTIO

Snežana Sekulić, Maja Rajković

Abstract:

**Introduction**: The issues related to safety of indution of labor in women with previous cesarean section remain controversial. Where do we stand?

**Objectives:** To compare pregnancy outcomes in women with one prior low transverse cesarean delivery after induction of labor with pregnancy outcomes after spontaneous labor, assessing the efficacy and safety of labor induction.

**Study design:** This was a 5-years retrospective study (2012. - 2016.) of women with one previous cesarean delivery who attempting a trial of labor (TOL). We compared women with spontaneous labor with those whose labor was induced and in the two groups, we evaluated the rate of vaginal deliveries, major and minor maternal complications, neonatal morbidities and prognostic factors of success and failed TOL.

**Results:** One hundred and seventy five patients underwent a TOL: 110 spontaneous and 65 induced. The rate of vaginal deliveries was higher in those with spontaneous labor versus induced (68,6% vs 55,2%). In either group, more operative vaginal delivery was realized and when there was a failed trial of labor, the most prevalent indication of cesarean was dystotio. There were one case (0,5%)of uterine rupture, and 2 cases of haemorrhage requiring transfusion (1%), all them with spontaneous labor. No perinatal deaths occured in either group. 3 neonates had an APGAR score at five minutes <7 (2 with spontaneous and 1 with induced labor).

**Conclusion:** These results suggest that induced labor is associated with an increased rate of unsuccessful VBAC, but demonstrated that there was no significant difference between groups regarding perinatal and maternal morbidity. Indeed, on the contrary to literatury, there wasn,t more risk of uterine rupture with induction. the authors confirmed that there were common factors of successful in all women attempted a TOL. According to our study, induction of labor may be a reasonable, safe and an attractive choice among women with a previous cesarean section.

### P-0193 | POSTER | PRETERM BIRTH

# TRANSVAGINAL ULTRASONOGRAPHIC EVALUATION OF THE CERVIX FOR PREDICTION OF SPONTANEOUS PRETERM BIRTH IN SINGLETON PREGNANCIES

Zoran Belics, Zoltán Papp

Abstract:

Preterm birth (PTB) is a syndrome with a variety of causes and underlying factors which resulting contraction of the uterus and changes in the cervix (effacement and dilation). Globally, prematurity is the leading cause of perinatal mortality and morbidity, an estimated 15 million newborns are born too early every year (more than 1 in 10 newborns). By this means, there is an urgent need to find and implement diagnostic methods and interventions that can reduce this public health treat. Ultrasound evaluation of the cervix during pregnancy has been the focus of much research during the past decades. Cervical measurement by transvaginal sonography (TVS) has been shown to be a good predictive test for spontaneous preterm birth (PTB) in high and low risk singleton pregnancy. There are three main characteristics of the cervix, which can be evaluated during the ultrasound examination, especially during the TVS of the cervix: cervical length, funneling and cervical gland area. Cervical shortening (i.e., effacement) is one of the first steps in the processes leading to labor and can precede labor by several weeks. Because effacement begins at the internal cervical os and progresses caudally, it is often detected on ultrasound examination before it can be appreciated on physical examination. This is equally true for funneling and cervical gland area, which cannot be assessed with the physical examination, so all of these markers, especially if they are use together, can be useful to predict PTB and start adequate therapy just on time.

### P-0194 | POSTER | PUBLIC HEALTH

### CONNECTIVE TISSUE DYSPLASIA IS A FACTOR OF PERINATAL RISK

S.I. Zhuk, L.G. Nazarenko

Abstract:

**Objective:** One of the features of the health status of the population of modern Ukraine is the high prevalence of connective tissue (CT) anomalies. Most often they identify as dysplasia, seen as a consequence of genetic load under the influence of new social, anthropogenic factors (stress, inadequate food), in the expression of environmental changes. On modern scientific ideas, dysplasia of connective tissue (DCT) has 100% dependent on the actions of adverse factors in the prenatal period, that allows to consider them as a dismorphogenetic phenomenon. Our goal is evaluation of contributing links between complications of gestational process and connective tissue abnormalities.

**Materials and methods:** Conducted cohort study (2004-2008, 6585 observations) to assess the prevalence of the DCT in the Eastern Ukrainian region of Ukraine. We investigated the role of anomalies of the CT as a possible source of obstetric and perinatal pathology. In the second phase, using a case-control method we assessed importance of DCT in the development of such forms of pathology: miscarriages and premature births, preeclampsia, premature detachment of the placenta, dystocia. As you know, the special cipher for DDT in ICD-10 does not exist, and various pathological conditions and syndromes took place in different sections - varicose processes, myopia, mitral valve prolapse, hypermobility of joints, etc.

Results: The frequency of DCT among women of reproductive age reaches 30-33, 1% in different years, is more common in women megalopolis, less frequently in rural areas. Therefore, DCT is a population characteristic of the modern generation of the region, as well as a qualification for enhancing the effect of dysplasia in subsequent generations. Found that in women with DCT typical mechanism for premature termination of pregnancy is the shortening of the cervix during the second trimester. The relative risk for miscarriage pregnancy when DCT is high (4.34, DI -6.1 3.09). For DCT characteristic are the following types of pathology of pregnancy, which play a role in the pathogenesis of primary morpho-functional disorders of the utero-placental complex, breach of collagen synthesis. We established a higher frequency of premature detachment of the placenta (4.1% with regional frequency 0.5 -1.5%), abnormal placental attachment, severe pre-eclampsia, obstetric trauma, postpartum hemorrhage. Childbirth in women with DCT in 40% pass with premature rupture of membranes, quickly due to the shortening of latent phase 1 period. More warped and dyscoordination uterine contractions. To improve pregnancy outcome for mother and fetus if DST us requested and successfully applied in clinic courses angioprotektoral drugs diosminum, gesperedinum, Ginkgo biloba.

**Conclusions:** DCT should be considered as a significant risk factor for perinatal pathology. Shortening of the cervix is the visceral marker of DCT during pregnancy. Using diosminum or gesperedinum or Ginkgo biloba or its combinations during pregnancy provides better perinatal outcomes compared with a group of women who have been appointed not that drugs.

**Key words**: Connective tissue, dysplasia, miscarriage, perinatal risk.

### P-0195 | POSTER | PREGNANCY OUTCOME

### MARFAN SYNDROME: IS PREGNANCY POSIBLE AND SAFE?

Rankov O, Bogavac M, Stojić S, Petrović Đ, Golijan B Clinical centre of Vojvodina, Clinic for gynecology and obstetrics Novi Sad, General hospital Subotica

#### Abstract:

The Marfan syndrome is an autosomal dominant condition of connective tissue, primary affected tunica media of aortae. Primary defect is mutation of FBN-1, genes encoding glicoprotein fibrilin-1, due to maintains firmness aortic wall. Main risk for Marfan syndrome is father's age in term conception. Pregnancy and the postpartum period is a high-risk time for aortic dissection and rupture in women with Marfan syndrome. The increased risk may be due to increased arterial wall stress associated with the hypervolemic and hyperdynamic circulatory state throught pregnancy. Aortic root dilatation can also lead to worsening aortic regurgitation.

Pregnant women admitted to Clinic for gynecology and obstetrics in 34 GW with suddenly abdominal pain. Her father and brother had Marfan syndrome: father died at age of 30 year because rupture aorta; brother had thoracal aorta surgery and aortic valve replacement at age of 21 year. At admition she was 171 cm high, 78 kg weight normotensive with sinus tachycardia HR 120/min. Her only had periumbilical pain. Laboratory test were in referent values, obstetrics ultrasound show: proper morphology of fetus, 37+3 WG: uterus on a back wall, normal amniotic fluid AFI 110, Doppler Au 0,86. BM 2800 g.

NMR showed aneurisma infrarenal aorta diameter 62 mm and aneurisma right arteriae iliacae communis (25 mm). Gynecologist suggest cardiology exam: Echocardiography showed EFLV 59%, with first degree mitral regurgitation, and she suggested low dose beta blocator and adequate dose low molecular wight heparin. Pulmonary exam and spirometry was normal. Vascular surgeon examined patient; consequently multidisciplinar team including gynecologist, vascular surgeon, anaestesiologist and internalist suggested cesarean section with consequently aneurismectomia abdominal aorta and aortobiiliar bypass. Caesarean section is performed by laparathomy after Cohen. A live female newborn was born, weight 3050g lenght 47 cm. The uterus is sewn with an prolonget suture in two layers. Blood loss was only 200 ml. After Caesarean section team of vascular surgeons did aneurismectomia infrarenal part of aorta and put aortobiiliar bypass. Postoperative women was at Intensive Unit folowed by anaestesiologist with stable state.

**Keywords:** Marfan syndrome, pregnancy, aortobiiliac bypass

### P-0196 | POSTER | OUTCOME OF PREGNANCY

### PREPARTAL ACUPUNCTURE (PPAC) IN FINAL MONTH OF PREGNANCY

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Department of Anesthesiology, Intensive Care Medicine and Pain Management, Sestre milosrdnice University Hospital Center, Zagreb, Croatia

Clinical Department of Gynecology and Obstetrics, Sestre milosrdnice University Hospital Center, Zagreb, Croatia

### Abstract:

**Introduction:** The use of acupuncture in obstetrics increases in western medicine. A properly applied AC will not endanger an intact pregnancy. Patient preparation for the delivery process and the accompanying pain is very important from the psychological, social and physical aspect. An adequate preparatal preparation guarantees a better cooperation and outcome of the pregnancy. We have decided to study subjective experience of PPAC.

**Methods:** At the Department of Gynecology and Obstetrics, Sestre milosrdnice University Hospital Center we have analysed a group of 12 women in labor, who treated with acupuncture from 36 gestation week once a week for the purpose of faster cervical ripening, maternal relaxation and sedation. We analysed subjective experience of acupuncture. Demographic and clinical data were presented as median and 25th and 75th interquartile range, or number (%).

Results: All pregnancies were normal, with no significant medical, obstetric or fetal condition. The median age of parturients was 33 (31-34). Three (25%) women were nulliparous, seven (58%) had one labor before this one and in two (17%) women this was third labor. Three women (25%) had earlier experience with acupuncture (for migraine, sinusitis, paresis of plexsus brachialis). During this study, all women had positive experience with acupuncture and according their own opinion, acupuncture helped in ripening of cervix (83%), psychical relaxation (33%) and reduction of pretibial oedema (1%). 25% women had less than 3 acupuncture treatments and 75% women had 3 to 5 acupuncture treatments before labor. The labor duration from hospital arrival to delivery in 4 (33%) women was less than 5 hours, in 10 (83%) women was 5 to 10 hours and in 1 woman more than 10 hours. Seven (58%) women were open more than three fingers at hospital arrival. The median VAS (visual analog score) during delivery was 7 (3,5-8,5), during two hours after delivery 4 (2,5-7) and during first three days in hospital 3 (2-5,5). Only two (17%) women were not used analgetics during hospital stay. Side effects or complications of acupuncture were not identified. All women would recommend PCAC to future mothers.

**Conclusion:** These findings suggest beneficial effects of PPAC on cervix ripening, duration of labour and pscychical relaxation according parturients opinions during early postnatal period. PPAC could improve pregnancy outcomes in women with high anxiety or slowly cervix ripening during earlier labours.

### P-0197 | POSTER | PREDICTION AND PREVENTION OF FETAL DEATH

### THE REAL UMBILICAL CORD KNOT-INFLUENCE ON PERINATAL OUTCOME

Kejla Petra, Fistonić Nikola, Matijević Ratko

### Abstract:

The umbilical cord knot appears in approximately 1% of all pregnancies usualy as one fold knot and losely tied. It is thought that to be formed during the first trimester of pregnancy and it's appearance is connected with long umbilical cord, polyhydramnion, low birth weight, gestational diabetes, male sex, high parity, monoamniotic twin pregnancy and amniocentesis. Real cord is hard to diagnose prenataly. On ultrasound it resambles four leave clover, but this is not a specific sing. Thightening of the real knot can compromise fetal circulation and result in intrauterin fetal death. In case of prenataly diagnosed real knot, intense second and third tirmester following is advised and elective cesarian section should be considered.

Retrospective analysis of medical documentation 04/2013-06/2017 has identified 64 cases of real umbilical cord knot in patients who delivered in Merkur University hospital. We have analized pre and postnatal caracteristics of the mothers and the babies (prenatal diagnosis, pathology in pregnancy, pathology of CTG during labour, sex, birght weight, Apgar score, method of delivery, postnatal complications). According to some authors the positive result and uncomplicated delivery is connected to the Warthon mucus amount that prevents torsion and compression of the fetal blood vessels.

The results of this study suggest that the real kont of umbilical cord is mostly a side finding and has no significant impact on the positive outcome of pregnancy and delivery. This puts the need of prenatal diagnosis of the phenomenon in question.

### P-0198 | POSTER | PUBLIC HEALTH

### WHO MONITORS PHYSIOLOGICAL BIRTH IN CROATIA?

Barbara Finderle Croatian Chamber of Midwives

Abstract:

**Introduction:** Croatian midwifery has changed drastically in the past few years. Most of the changes resulted from joining the EU. The structural modification intended to increase education, skill and the ability to monitor physiological birth. But is that goal accomplished? Before joining the EU, those wanting to study midwifery at the university level in Croatia could not do so. There were no midwifery studies at the university. This meant that the highest level of education for midwives was high school. With joining the EU Croatia was obliged to open undergraduate studies and now as a midwifery program: undergraduate studies at the University of Rijeka and Split. Students who graduated obtained the title baccalaureus/baccalaureate. This title is also the minimum acknowledged by the EU. It has been a few years since the first students have graduated and the Croatian Chamber of Midwives has prepared a survey among midwife bachelors in Croatia to get answers about their work and competences. Studies in Croatia had to be in line with Directive 2005/36/EC. This determined midwifery competences a student that graduates should posses; the knowledge and skills that midwives should have. Directive 2005/36 / EC, Article 42 provides for a minimum list of activities of midwives that the Republic of Croatia is obliged to provide and regulate at the national level through legislation and by-laws. Our research question was whether studying midwifery in Croatia made a difference to those that were studying it, did they obtain the necessary competences, are they able to use them and are they given a choice/freedom to perform those competences at work?

**Methods:** We created a survey, containing 63 questions. Participating in the survey was anonymous. Questions varied in form: written answers, circle one or more answer, yes or no questions. Out of more than 2500 registered midwives in Croatia, just over 130 were midwife graduates and among them, more than half completed the survey. This presents a representative sample. The respondents were employed in general or county hospitals, clinics or private gynecological clinics. The answers received were from participants from all counties in the Republic of Croatia. Due to all this, we determined that we had the representative sample. We then analyzed all the answers. Some of them were analyzed statistically and the others just by sorting and listing all the answers.

Results: With the opening of graduate studies, midwives have gained more competences. Accordingly, the latest Midwifery Act states that midwives now have the knowledge and prerequisites necessary for their field. The survey results clearly indicate that although they have gained a higher level of education, midwives were mostly not given the accompanying status (increased work responsibilities or competences) and the opportunity for professional development. Most of the interviewed midwives could perform the tasks specified in the Midwifery Actintended for finishing high school education even though they had graduated midwifery and became bacc.obs. Most of the subjects answered that there was a lack of staff and because of that "everyone does everything". For example, after graduating and getting a Bachelor degree in Midwifery, 61% percent of those taking the survey did not determine a pregnancy, monitor physiological pregnancy and deliver health care on a number of other levels. Some of the other problems midwives mentioned were that they have to do a lot of administrative tasks that are not midwifery related and are not doing house visits like in most of Europe. More than 71% said that their job hasn't changed after they graduated. In other words, a

whole generation of midwives graduated midwifery in Croatia, but at their workplaces they perform tasks intended for midwives with secondary (high school)education. Furthermore, we explore the body of research from the Lancet that states the importance of independent midwifery care and connect it to our research.

**Conclusion** More and more studies are coming out on the importance of midwife care. In terms of care for women and newborns but also for the functioning of health systems. It must be remembered that quality midwifery care is needed and it is proven that this makes women more satisfied. Slow, but at a steady pace, Croatian midwives are becoming more educated and their skills should be well used. The results of this survey are relevant primarily because of the mismatched situation. Midwives are educated, skilled and have a degree, Midwifery Act is "on their side" but at work they are not given the freedom to do their work according to their capabilities. We hope that this analysis will serve as an indicator of the status of higher education of midwives in Croatia and become the starting point for considering the final alignment and takeover of the competences that midwives are guaranteed by the Midwifery Act so that we can finally say midwives monitor physiologic birth in Croatia.

### P-0199 | POSTER | POSTPARTUM HEMORRHAGE

# MULTILATERAL ANOMALIES AT THE BIRTH AS A CONSEQUENCES OF HIGHER ORIGINAL POVERTY - MANIFESTATION, TREATMENT AND EXISTENCE

### Biserka Stajić

Pregnancy characterized by factors that increase the likelihood of an outbreak of fetal death, reterm delivery, intrauterine growth disorder, fetal or neonatal disease, congenital malformations, mental retardation, or other handicaps are called high-risk pregnancies.

Factors Associated with High-risk Pregnancy:

- 1. Economic poverty unemployment, poorer access to prenatal care
- 2. Cultural behavioral low level of education, poor use of nursing care, without or inadequate prenatal care, abuse of cigarettes, alcohol, drugs, less than 20 or over 35 years of age, a short period between two pregnancies, lack of support (husband, family), stress (physical, physiological)
- 3. Biological genetic preterminally or neonatal malnourished, birth weight, low weight in relation to height, poor gain on weight during pregnancy, low growth, poor diet, hereditary diseases (inborn disorders of metabolism, in newborns)
- 4. Reproductive preliminary imperial thesis, prolonged gestation, prolonged delivery, previous children with cerebral palsy, mental retardation, birth trauma, congenital anomalies, irregular fetal position (pelvis), multiple gestations, premature rupture of the membranes and infections, preeclampsia and eclampsia, uterine bleeding (Placenta previa, placenta abruption) Early delivery, uterus or cervical anomalies, fetal diseases, fetal growth disorder, idiopathic reproductive birth, jatrogenas prematurity, high or low levels of maternal serum alphahthoprotein
- 5. Medical Diabetes mellitus, hypertension, Congenital heart disease, autoimmune diseases, sickle cell anemia, TORCH infection, surgical intervention or trauma, sexually transmitted diseases, hypercoagulable conditions in the mother

Identifying visceral pregnancy is important not only because it is the first step towards prevention, but also because of the therapeutic steps that can be taken to reduce the risk to a fetus or newborn if the physician has already diagnosed the difficulties. It is no less important and it is very important to see the existence of a high-risk neonate during the neonatal period in order to reduce neonatal morbidity and mortality. The term high-risk newborn signifies the newborn, which should be under the watchful eye of experienced doctors And even 9% of all newborns require special or intensive neonate care for several days, although it may take from several hours to several months depending on the condition of the newborn.

Causes of newborns at high risk:

- 1. Dermographic social factors
- 2. Early medical history
- 3. Early pregnancy
- 4. Current pregnancy
- 5. Labor
- 6. Neonatus

**Method:** A case study of a newborn with multiple anomalies at birth, where the mother had a high-risk pregnancy due to day-to-day stress in the family, which was intensified at the end of the fifth month of pregnancy and resulted in a decline in fetal development, previous birth. Pregnancy was brought to the end, but due to the constitution of the mother and the disproportion of the birth canals, the delivery was prolonged and it was completed by caesarean section, all of which resulted in fetal suffering and the manifestation of the correlation of hypoxic damage to brain structures and lyophilic asphyxia. Two years earlier, the first pregnancy ended with a heavier birth and mortality of neonates.

**Result:** From birth status: female neonate born with Caesarean section, birth weight 2650gr, birth length 49cm, head circumference32cm, APGAR SCOR 4/6. Lividly, hypothetically, hypotrophically, it did not cry immediately and penetrated, and it was revived for three to five minutes, after which spontaneous breathing with occasional cessation was established, and the child was placed in the incubator with the existence of respiratory support, as well as I.V. Infusions of 10% Glicos with vitamins. After a few days, normal breathing is established and the child does not require more respiratory support but is under the constant control of a doctor. At the heart of the occasional systolic murmur 1/6, I suspect the existence of a heart defect. Births that the neonatus has palatoschisis. It is considered a vitamin K immediately after birth. During the stay at the Department of Neonatology, ECHO hips were made and it was found that the early nipple of the hips was obtrushed. Other diagnostic procedures were not performed for the purpose of detecting heart failure as well as neurological disorders. From the release status: Hypotonic, hypotrophic, body weight 2450gr, occasional heart murmur left parasternal 1/6. The floor is set up in an upright position that is consulted with the extension and the house. The depressive functions are neat. The adjacent lungs are neat. Primol BCG vaccine. The mother draws attention that because of the suffering of the fetus as a consequence of hypoxia and the existing hypotonia there is a great possibility that the child does not walk and remains disabled. Other findings stem from the great struggle of the mother to find out the true diagnosis of the child and to start treatment because they encounter no understanding and repeat that the child can not help. She noticed during the first year of her life that the VF was not closed, the larger she reported to the neurologist, and then she was referred to the neurosurgeon where it was found that the child had an enlarged chamber system, as well as an increased amount of liquor (Dg: Hydrocephalus) but not for operative grafting or installation of the pump. It has been observed that most of the brain mass is reduced. At the control examination, the neurosurgeon confirmed the expansion of the chamber system with the existence of scar tissue without the existence of a greater amount of liquor. That's why all neurosurgeon examinations were completed, and the diagnosis of RPM neurologist. The first ECHO heart was made only six years after the noise was heard hurting. It was diagnosed with an ASD size of 5.6mm and on a control examination after two years of the same diaderesis but an aperture of 5.5mm. The patient was in the IZZMD N. Belgrade where the cardiologist diagnosed sus FOA and scheduled control for one year when it was established that ECHO hearts of a regular finding but systolic murmur still exists. Cardiovascular controls were continued Still for the control ECHO heart. Palatoschisis has not been rehabilitated so far. In the first year of life, when scheduled surgery, she had frequent bronchitis every 15 days and could not be anesthetized. Today this anomaly does not bother her. The teeth began to grow rapidly, and had too many teeth twisted in two rows as well as the Caries dentis, which was rehabilitated as an excessive dentition at the Faculty of Dentistry in Belgrade. The hypotension of the lower extremities improved due to the persistence of the ocular and the mother who worked with her to achieve the movement, and later when the toomas muscle improved the child with the help of the walker, constructed by the stepfather, begins to make the first steps. Today, he is walking independently, but due to a disturbance with his hips, there is an impression that he is slightly stretched and the stroke is barely noticeably unstable. The first words she spoke for a year, that she would experience stress and a great fear in the Children's Department after IV in 16 months. Injections of Longaceph, and the inclusion of infusion, and stops speaking. At the age of 15, she starts talking again. Today, the word of the word is increased, the child understands everything, serves herself, eats herself, is socialized and adapts to society. In 13 years, the first menarche, scarcely preceded by a crisis of consciousness. The crises of consciousness also occurred during the following years before every monthly bleeding, as when it experienced stress or euphoria. Now she's 18 years old. Because of the crisis of consciousness sent to a 15-year-old neurologist who confirms the already existing diagnosis - RPM I is referring to an endocrinologist. After all the analyzes and left-hand shooting, she has been included in the growth hormone therapy - Norditropin Nordilet and now receives Genotropin. Since the beginning of the treatment she has grown rapidly and gets in weight, since then the word of the word increases. The endocrinologist first gives great hopes to the mother after more years. The finding of a geneticist says that it is a female child of normal karyotype.

**Conclusion:** Every child has the right to life, growth and development no matter how born. We should never "write off" a child, we should give him a chance to show that life is not as we think it is, and that in medicine everything is impossible, because it is strained and progressing. In order to achieve the goals set, hope is indispensable, faith and family support without which everything could not be implemented. "If you are ready to change your life, it can help you" Hippocrates

Key words: risk pregnancy, child, anomalies, treatment, improvement

### P-0200 | POSTER | NEONATAL HEALTH

### SEVERE NEONATAL ANEMIA CAUSED BY FETOMATERNAL HEMORRHAGE: CASE REPORT AND OUR EXPERIENCE

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**Introduction:** Fetomaternal haemorrhage (FMH) is a loss of fetal blood into the maternal circulation. Massive FMH represents a loss of more than 80 ml (occurs in 1 of 1000 deliveries) or more than 150 ml (occurs in 1:5000 deliveries). The symptoms of FMH are nonspecific, and the most common prenatal presentation is decreased or absent fetal movements. It may be a cause of fetal hydrops as well as intrauterine fetal death. After birth, FMH may be presented as severe neonatal anemia, asphyxia, hypovolemic shock and respiratory distress. Kleihauer-Betke test or acid elution test is golden standard for diagnosis of FMH.

**Objectives:** To highlight FMH as a rare and potentially fatal cause of neonatal anemia.

**Methods:** We presented case report of the newborn with severe anemia at birth and the single tertiary center perennial experience trough the retrospective case series study. Severe neonatal anemia was defined as hematocrit < 30 % or hemoglobin < 10 g/dl. Diagnosis of FMH was set by Kleihauer-Betke test. The clinical and presentation, laboratory tests, diagnostic and therapeutic approach was presented.

**Results:** A term female infant from uneventful pregnancy was born by c-section because of incipient fetal asphyxia. Apgar scores were 4, 6 and 8 at the first, fifth and tenth minute, respectively. At birth, the newborn presented with pallor and signs of moderate asphyxia. Laboratory tests revealed severe anemia with hemoglobin level 5 g/dl. Kleihaurer-Betke test revealed the presence of fetal red cells in maternal circulation, equivalent to 287 mL blood loss. EEG showed. Hypotonia, hyporeflexia and depressed EEG activity was present in first few days of life. Patient was treated with multiple red blood cell transfusions. Outcome was favorable and infant was discharged home at 8th day of life.

During the last seven years, eight infants with severe anemia caused by FMH were treated in our hospital. Majority of them were born at term (7/8) with average birth weight of  $3188 \pm 144$  grams. Apgar scores ranged from 1 to 6 in the first minute, and from 0 to 8 in fifth minute. The commonest clinical manifestations were pallor, tachycardia, tachypnea, apnea, lethargy, respiratory and circulatory failure. One infant was presented with signs of fetal hydrops and other one with pulmonary hypertension. Average hemoglobin concentrations on admission were  $5.1\pm2.9$  g/dl (from 2.8 to 10 g/dl). Estimated volume of fetal blood loss ranged from 94 to 530 ml. Elevated level of fetal hemoglobin and alpha-fetoprotein in maternal blood additionally confirmed the diagnosis of FMH. All patients were treated with red blood cell transfusion. Outcome was favorable in 6 out of 8 newborns. Two patients died due to shock with adrenal hemorrhage and pulmonary hypertension.

**Conclusions.** FMH is rare but potentially fatal cause of neonatal anemia. Because of nonspecific prenatal signs recognition of this condition is difficult. We hope that our report raise awareness about possible severity of FMH.

### P-0202 | POSTER | DIABETES IN PREGNANCY

### MATERNAL OBESITY AND CONSECUTIVE COSTS OF PERINATAL CARE IN TERTIARY LEVEL HOSPITAL IN SERBIA

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**Objective.** The objective of this study was to investigate the impact of extreme maternal BMI on pregnancy outcomes and the costs of perinatal care at tertiary level hospital in Serbia.

**Methods.** We performed a retrospective study of the cohort of pregnant women registered during the first trimester screening in the period from March 2016 to February 2017 and had delivery in Gynaecology and Obstetrics Clinic "Narodni front" in Belgrade, Serbia. We evaluated 63 who were extremely obese (BMI  $\geq$  35 kg/m2). Multiple pregnancies were excluded. Data collection about their prepregnancy and perinatal morbidity, pregnancy outcomes and costs of the healthcare we gain using their EHR and electronic hospital bills. Comparisons were made with other pregnant women who had delivery in the observing period.

**Results.** Additional prepregnancy comorbidity was present in the 20.6% of extremely obese patients. Their pregnancy was mostly complicated with gestational diabetes (33.3%) and hypertension (27%). 52.4% pregnancy ended by SC and 47.6% vaginaly out of which 7.9% were preterm. In comparison with other patients OR for delivery complications was 1.45 CI 95% (0.85- 2.47) and OR for SC was 2.31 CI 95% (1.41-3.80). Average length of hospital stay during whole period of pregnancy was 9 days for vaginaly ended pregnancy and 13 for SC respectively. The total costs for the perinatal healthcare of extremely obese pregnant patient were 52.8% above the average after SC and 47% after vaginal delivery in tertiary level hospital.

**Conclusions.** Extremely obese pregnancy becomes entity which demands special clinical attention and resources. Maternal obesity could have a longer-term implications for the mother and infant health and therefore prevention and treatment of obesity may reduce meaningful health consequences and future economic costs.

**Key words:** pregnancy, costs, obesity, maternal

### P-0203 | POSTER | CESAREAN SECTION DILEMMA

### INDUCTION OF LABOR AFTER PREVIOUS CESAREAN

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**Introduction:** Cesarean section rate is increasing worldwide despite World Health Organisation (WHO) and other scientific and professional organisations recommendations. Mean contribution to that trend is high incidence of planned repeat cesarean deliveries. Vaginal birth after cesarean (VBAC) is recently promoted as good alternative to planned repeat caesarean section, particularly in selected population of pregnant women with only one previous caesarean and other criteria like certain specific indication for previous caesarean.

**Objectives:** The aim of this study was to compare the perinatal outcome of trial of labor in women with one previous caesarean in the group one who had induction of labor and other who had spontaneous onset of labor.

**Material and methods:** This study population was divided into two groups: women who had spontaneous onset of labor (n = 610), and induction of labor (n = 72).

**Results:** Successful spontaneous vaginal birth after cesarean (VBAC) was 60%, and in the group who had induction of labor it was 63,9%. The rate of maternal complication in groups were 10.5% and 8.3 %.

**Conclusion:** Induction of labor labor in women with one previous caesarean section is safe and useful method which can contribute to decrease caesarean section rate with acceptable rate of maternal and neonatal complications. This procedure can be successful alternative to planned repeat caesarean section.

### P - 0204 | POSTER | PREVENTION OF PRETERM DELIVERY

# A COMPARISON OF DIFFERENT SONOGRAPHIC MEASUREMENT TECHNIQUES OF THE CERVICAL LENGTH IN THE THIRD TRIMESTER OF PREGNANCY

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### Abstract:

**Objectives:** To investigate the feasibility of transabdominal and transperineal ultrasonography for uterine cervical assessment and evaluate the agreement between uterine cervical length measurement from transabdominal, transperineal and transvaginal ultrasonography at the third trimester of pregnancy.

**Methods:** This prospective study recruited 235 pregnant women at the time of a routine 3rd trimester growth scan (30-34 weeks) in the ultrasound unit of the 3rd department of Obstetrics and Gynecology, Medical School, Aristotle University of Thessaloniki, Greece. All measurements were acquired by one operator, with a Fetal Medicine Diploma, who was blind to the measurements acquired in all approaches. The cervical length was measured using the transabdominal (TA), the transperineal (TP) and the transvaginal (TV) approach. The transvaginal approach was used as the reference measurement.

**Results:** The cervical length was measurable in 109 (46.4%) cases by TA, in 233 (99.1%) of cases by TP and in all cases by TV ultrasonography respectively. The mean maternal age was  $30.2 \pm 6.4$  years and the median gestational age 32 weeks (Range: 30-34 weeks). The mean cervical length with the TA approach was  $35 \pm 6.4$ mm, while  $32.6 \pm 8.4$ mm and  $32.9 \pm 8.6$ mm with TP and TV examination respectively. No significant differences in the comparison of transabdominal and transvaginal measurements (p=0.172) and between transperineal and transvaginal technique (p=0.161) were identified.

**Conclusions:** The findings of this study suggest that at 30–34 weeks of gestation the cervix can be measured correctly by both the TA and the TP approach. However, a TA measurement can be acquired in less than half of the cases, whereas a TP measurement in about 99% of the cases.

**Keywords:** cervical length, transabdominal, transperineal, transvaginal

### P - 0205 | POSTER | PUBLIC HEALTH

# PERINATAL MORTALITY IN A REFERENCE CENTER IN THE REPUBLIC OF MACEDONIA

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### Abstract:

**Objective:** Perinatal statistics gives us insight in the problems of modern perinatology and provides us with directions on how to improve maternal-fetal care. The purpose of our study was to analyze some of the indicators of perinatal statistics for 2016 in tertiary obstetrical reference center in R. Macedonia-University Clinic for Gynecology and Obstetrics. Our clinic handles over 90% of all preterm births before 28th gestational week, mostly due to transport-inutero from other secondary birthing centers. Consequently, over 85% of all neonatal deaths in the country happen at our clinic, mostly due to complications of prematurity.

**Methods:** We used data-basis of obstetrical histories from our clinic in 2016. We included only singleton pregnancies, without fetal anomalies, grouped according to gestational age. We analyzed % of fetal and neonatal mortality, as well as perinatal, fetal and early neonatal mortality rates, using SPSS statistical program.

**Results:** Out of 5560 yearly births, fetal mortality rate was 2.09% (of these, 54.31% death before admission-DBA). According to groups, fetal mortality was 0.86% before 20 gw (0.86% DBA), 40.52% 20-27 gw (10.34% DBA), and 58.62% over 28 gw (43.1% DBA). Neonatal mortality rate was 3.2%. According to groups, neonatal mortality was 1.12 % before 22 gw, 34.83% 22-27 gw, 34.83% 28-31 gw, 25.84% 32-36 gw and 3.37% for 36 gw and over. For gestational age over 22 gw or >500 g birth weight, we found perinatal mortality rate 44.82/1000, fetal mortality rate 20.7/1000 and early neonatal mortality rate 24.63/1000, and for GA over 28 gw or >1000 g birth weight, the rates were 30.26/1000, 13.57/1000 and 16.9/1000, respectively.

**Conclusion:** Although statistical indicators are similar to those in the region, much can be done to improve the perinatal outcomes as well as to prevent preterm births and complications after them.