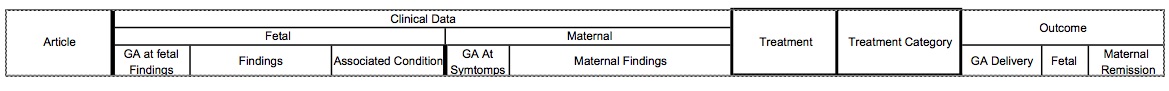
Supplement 1



Supplement 2

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Article | Clinical Data | | | | | Treatment | Outcome | | |
| Fetal | | | Maternal | |
| GA at fetal  Findings | Findings | Associated Condition | GA At Symptoms | Maternal Findings | GA Delivery | Fetal | Maternal  Remission |
| O’Driscoll 1956 (1) | 32 | Placentomegaly, Ascites | Isoimmunization | 32 | Dyspnea, Vaginal bleeding, Anemia, Edema, HTN | None | NR | NR | 2 |
| Goodlin 1957 (2) | 26 | Hydrops fetalis | Isoimmunization | 25 | Edema, HTN, Proteinuria, Visual disturbance, N/V | NR | 26 | IUFD | NR |
| Goodlin 1957 (2) | 33 | Hydrops fetalis | Polyhydramnios | 30 | Edema | NR | 33 | IUFD | NR |
| Goodlin 1957 (2) | 31 | Hydrops fetalis, Polyhydramnios | Isoimmunization | 30 | Edema, Proteinuria | NR | 32 | IUFD | NR |
| Cohen, 1960 (3) | 28 | Edema, Placentomegaly | Isoimmunization | 27 | LLE, Anemia, Polyuria | Reserpine, Diuretics, Low salt diet | 28 | SB | NR |
| Hirsch 1964  (4) | 30 | Placentomegaly | Isoimmunization | 28 | Edema, Anemia, Albuminuria | Bed rest, Diuretics, Low salt diet, ACTH, Steroids, Transfusion | 31 | SB | 14 |
| John 1964 (5) | 28 | Hydrops fetalis | Isoimmunization | 26 | HTN, Edema, Albuminuria | Diuretics | 28 | SB | NR |
| Nicolay 1964 (6) | 35 | Hydrops fetalis, Placentomegaly | Isoimmunization | 34 | Edema, HTN, Proteinuria | Diuretics | 35+2 | ND | 3 |
| Nicolay 1964 (6) | 33 | Hydrops fetalis, Placentomegaly | Isoimmunization | 30 | Edema, weight gain | Diuretics | 33 | SV | 3 |
| Nicolay 1964 (6) | 30 | Hydrops fetalis, Placentomegaly | Isoimmunization | 29 | Edema, Weight gain | NR | 30 | ND | NR |
| John 1964 (5) | 30 | Hydrops fetalis, Placentomegaly | Unknown | 28 | Edema, HTN, Proteinuria | NR | 30 | SV | NR |
| de Silva 1971 (7) | NR | Hydrops fetalis, Placentomegaly | Isoimmunization | 27 | Edema, Anemia | Iron, Vitamin B12, Calcium lactate, Diuretics | 30 | SB | 27 |
| Kaiser 1971 (8) | 32 | Hydrops fetalis, Ascites, Pericardial effusion, Placentomegaly | Unknown | 28 | Edema, Anemia, Dyspnea, Oliguria, Proteinuria, HTN | Diuretics, Digitalis, Phenobarbital | 32 | ND | 7 |
| Keane 1978 (9) | 29 | Polyhydramnios, Hydrops fetalis, Placentomegaly | Isoimmunization | 26 | Edema, HTN | None | 29 | SB | 1.5 |
| Quagliarello 1978 (10) | 30 | Hydrops fetalis, Pericardial effusion, Ascites, Hepatosplenomegaly, Placentomegaly | CMV | 30 | Edema, HTN | Not reported | 30+2 | ND | NR |
| Mahmood 1987 (11) | 26 | Hydrops fetalis, Polyhydramnios | Isoimmunization | 26 | HTN, Albuminuria, Anemia | None | 27 | ND | 10 |
| Ordorica 1990 (12) | 27 | Hydrops fetalis, Polyhydramnios, Ascites, Cardiomegaly, Placentomegaly | Aneurysm of Vein of Galen | 30 | Edema, Proteinuria, Pulmonary edema, Dyspnea, Renal Insufficiency, HTN | Digoxin, Diuretics, C\S | 34 | ND | 5 |
| Van Selm 1991 (13) | 22 | Hydrops fetalis, Placentomegaly | Isoimmunization | 22 | Edema, Anemia, HTN, Elevated Uric Acid | None | 27 | IUFD | 1 |
| Van Selm 1991 (13) | 25 | Hydrops fetalis, Placentomegaly | Isoimmunization | 25+5 | Edema, HTN, Eclamptic Convulsion, Cerebral Hemorrhagic Infarction | Intrauterine transfusion | 27 | IUFD | 7 |
| Van Selm 1991 (13) | 28 | Hydrops fetalis, Anemia, Placentomegaly | Isoimmunization | 28 | Edema, Epigastric Pain, N\V, Visual Disturbance | Intrauterine transfusion | 28+4 | IUFD | 2 |
| Duthie 1995 (14) | 25 | Hydrops fetalis, Oligohydramnios, Placentomegaly, Anemia | Parvovirus B19 | 25 | Edema, Proteinuria, HTN, low Plt | Intrauterine transfusion | 37 | SV | 25 |
| Ville 1995 (15) | 25 | Fetal and placental hydrops, Ascites, Subcutaneous edema, Heart dilatation, Pericardial effusion | Parvovirus B19 | 25 | Chest Pain, Headache, LLE, Hand Edema, Hypertony, Pleural Effusion, Hypoosmolality and Secondary Hyperaldosteronism | Water depletion, Albumin | 25+3 | IUFD | 10 |
| Dorman 1995 (16) | 19 | Hydropic fetus, Placentomegaly | Placental Chorioangioma | >19 | Headache, Nausea, LLE, HTN, Proteinuria | Methyl dopamine | 19+ | SB | 2 |
| Carbillon 1997 (17) | 30+3 | Hydrops fetalis, Pleural effusion, tricuspid regurgitation, Pulmonary atresia, Placentomegaly, Polyhydramnios | Ebstein’s Anomaly | 30+4 | Edema, Anemia, low Plt | Bed rest | 31+3 | SB | 4 |
| Gherman 1998 (18) | 25 | Polyhydramnios, Placentomegaly, Hydrops fetalis | Placental Chorioangioma | 25 | LLE, Elevated Uric Acid, Pruritus, high HCG, Dyspnea, Hemodilutional anemia | Magnesium sulfate, Therapeutic amniocentesis | 26 | ND | 21 |
| Heyborne 2000 (19) | 16 | Hydrops fetalis, Ascites, Pericardial effusion, Skin edema | Dichorionic Twins | 16 | Edema, abnormal LFT | Steroids, Selective feticide of the affected twin | term | SV | 14 |
| Galimberti 2000 (20) | 26 | Edema, Ascites,  Pleura effusion, Polyhydramnios | Placental Chorioangioma,  cardiac failure | 26 | Edema, HTN, Proteinuria, Anemia, Hyperreflexia, elevated uric acid | None | 26 | ND | 6 |
| Midgley 2000 (21) | 27 | Pericardial effusion, Scalp edema, Ascites | Supraventricular Tachycardia | 27 | Headaches, HTN, Visual Disturbance, Proteinuria, Elevated Uric Acid | Flecainide | 40+1 | SV | 7 |
| Nakamura 2002 (22) | 23 | Edema, Ascites, Hydrothorax, Cardiac anomalies, Placentomegaly | Unknown | 23 | Hydrothorax, Edema, Proteinuria, HTN | NR | 25 | IUFD | 23 |
| Vidaeff 2002 (23) | 31 | Hydramnios and fetal ascites | Unknown | 31 | Edema, Anemia | NR | 31+3 | SV | 7 |
| Vidaeff 2003 (24) | 32 | Polyhydramnios, Scalp edema, Pleural effusions, Ascites, Placentomegaly | not mentioned | 32 | Edema | NR | 32+1 | ND | NR |
| Deurloo 2003 (25) | 29 | Polyhydramnios, Hydrops fetalis, Bilateral hydrothorax, Placentomegaly | Unknown | 30 | Ascites, Pain, Headache, Visual Disturbance, Back Pain, Edema, hyperreflexia, HTN, Proteinuria, abnormal LFT, Anemia, Albuminuria | Thoracocentesis, Thoracoamniotic shunting | 30+1 | SV | 4 |
| Heyborne 2004 (26) | 16 | Pleural and pericardial effusions, Skin edema | Dichorionic Twins | 16 | Edema, low Plt, abnormal LFT | Steroids, selective feticide | term | SV | 14 |
| Pirhonen 2004 (27) | 28+1 | Hydrops, Skin edema, Ascites, Pleural and pericardial effusions | Dichorionic Twins | 26+1 | Edema, HTN, Proteinuria, Elevated Uric Acid and Creatinine, hyperkalemia, hyponatremia, abnormal LFT | NR | 29+4 | death  of one  fetus | 21 |
| Goeden 2005 (28) | 21+5 | Hydrops fetalis, Scalp edema, Pleural and pericardial effusions, Ascites, Pplacentomegaly | Parvovirus B19 | 23+4 | Edema, Anemia, HTN, Proteinuria, Elevated Uric Acid | lung maturation,  intrauterine transfusion | 36+6 | SV | 28+4 |
| W Harry 2005 \* (29) | 25 | Anemia, Hydrops fetalis | Parvovirus B19 | 25 | Pleural Effusion, Ascites, Edema, HTN | Intrauterine Transfusion | 36+2 | SVsv | 7 |
| Rustamov 2006  (30) | 26 | Oligohydramnios, Fetal ascites, Pericardial effusion, Anemia | Iso-ImmunizationIsoimmunization | 26 | Edema, Headaches, Vomiting, HTN, Proteinuria, Elevated Uric Acid, Pulmonary Edema, Anemia, low Plt | intrauterine transfusion | 26+3 | ND | 0 |
| Hayashi 2006 (31) | 24+5 | Polyhydramnios, hypertrophic cardiomegaly, hydrops fetalis, placentomegalyPlacentomegaly, anemia | Monochorionic-Diamniotic  Twins with TTTS | 25 | edemaEdema, anemia, low HCT, Pulmonary Edema, Dyspnea, | Amniotic fluid drainage, laser ablation | 25+1 | IUFD | 1 |
| Olivella 2006 (32) | 27+6 | Hydrops fetalis | Monochorionic-Diamniotic twins with TTTS | 27+6 | HTN, Tachycardia, dyspnea | laser Laser ablation | NR | NR | NR |
| Olivella 2006 (32) | 19+3 | Polyhydramnios | Monochorionic-Diamniotic  twins with TTTS | 19+3 | HTN, abnormal LFT, Anemia | None | NR | IUFD | NR |
| Brochot 2006 (33) | 20 | Hydrops fetalis, IUGR, Anemia | Parvovirus B19 | 25 | HTN, abnormal LFT, Elevated Uric Acid, Edema, Hemodilution, Epigastric Pain, Pulmonary Edema, Pleura Effusions | nicardipine, labetalol, diuretics, intrauterine transfusions | 36 | SV | 1 |
| Proust 2006 (34) | 25 | Hydrops fetalis, Anasarca, placentomegalyPlacentomegaly | Parvovirus B19 | 25 | Edema, Proteinuria, HTN | None | 25 | IUFD | NR |
| Proust 2006 (34) | 22 | Hydrops fetalis, Anasarca, Placenta hypertrophy | Parvovirus B19 | 24+6 | Edema, Proteinuria, Pruritus, Hyperuricemia, abnormal LFT | Intrauterine transfusion | 25 | IUFD | 7 |
| Mmizrahi-Aarnaud 2006 (35) | 29 | Hydrops fetalis, Aortic stenosis, Dilated left ventricle, Polyhydramnios, Placentomegaly | Aortic Stenosis | 30+4 | Pulmonary Edema, abnormal LFT, Low TSH, high Chorionic Gonadotropin | digoxinDigoxin, fetal Fetal aortic valve dilatation,  C\S | 30+6 | ND | 7 |
| Patenoster 2006 (36) | 28+4 | hydropesHydrops fetalis, Placentomegaly, Polyhydramnios, ventriculomegaly, Absent or reversed end-diastolic flow, Aanemia | Cystic Hygroma | 30 | Edema of Hands and Face, Anemia | Ppleuroamniotic shunts | 30+3 | c/sC/S | 6 |
| Lleung 2006 (37) | 27 | Cardiomegaly, Ascites, Subcutaneous edema, Pericardial effusion, Polyhydramnios, Placentomegaly | Ebstein’s Anomaly | 29 | Edema, Abdominal pain, palpitations, Sinus tachycardia, abnormal LFT, hypothyroidism, Oliguria, Elevated Uric Acid Andand Creatinine, Anemia | intrauterine transfusion | 30 | SB | 0 |
| Stepan H 2006 (38) | 24 | Placentomegaly, hydropeshydrops fetalis, Anemia, plueralpleural effusion, ascites, polyhydrminiospolyhydramnios | Parvovirus B19 | 24 | edema, anemia, HTN, Proteinuria, dyspnea abnormal LFT, oilguriaoliguria sFlt1 level=14,117 pg/ml per mililiter | Maternal Transfusion | recovered before delivery | SV | 36+4 |
| Kumar 2007 (39) | 26 | Polyhydramnios, cardiomegaly, Ascites, donor: Oligohydramnios, ascites, hydrops | Monochorionic-Diamniotic  twins with TTTS | 27 | HTN, Edema | laser ablation therapy, selective feticide | 27 | IUFD | 1 |
| Chang 2007 (40) | 19 | poly-/oligohydramnios, Recipient twin reverse A wave of the ductus, venosus and pulsation of the umbilical vein. | Dichorionic-Triplets  with TTTS | 19 | Edema, HTN, Anemia, Elevated Uric Acid, High LDH | C\S | 19+1 | SV | 2 |
| Rana 2007 (41) | 29+4 | hydropeshydrops fetalis, Placentomegaly, Hepatosplenomegaly, Cardiomegaly, Pulmonary Hypoplasia | CMV | 29+4 | LLE, HTN, Proteinuria | Induction, fetecidefetocidefeticide | 29+5 | IUFD | NR |
| Wurm 2007 (42) | 31 | Hydrops fetalis, Ascites | Congenital Disorders  of Glycosylation Type Ia | 31 | Edema, Oliguria | c/s | 36 | SV | NR |
| Valsky 2007 (43) | 25+6 | abdominal cyst, hydrops fetalis, anemia, Cardiomegaly, valvular disease, Reversed flow in the ductus venosus, Oligohydramnios, Placentomegaly | Diamond-Blackfan Anemia | 26+6 | Edema, HTN, Proteinuria,lowProteinuria, low HCT, abnormal LFT, Elevated Uric Acid | intrauterine transfusion,  magnesium sulfate | 34+1 | SV | 90 |
| Llivingston 2007 (44) | 29+2 | sacrococcygeal mass, urinary ascites, Skin Edema, Placentomegaly, Oligohydramnios, Hydroureter, Hydronephrosis, bladder rupture | endodermal sinus Tumor of the Sacrococcygeal | 29+2 | Edema, Dyspnea, Chest Pain, Palpitations, Blurred Vision, HTN, Anemia, Hyperuricemia, dyspnea, Tachycardia | Diuretics, fluid restriction, fetal peritoneal-amniotic shunt | 34+4 | SV | 3 |
| Aallen 2007 (45) | 27+6 | Hydrops fetalis, kidney mass, Placentomegaly | Renal Neuroblastoma, metastatic to the placenta | 28+6 | Edema, HTN, Oliguria | NR | 29 | NR | NR |
| Finamore 2007 (46) | 25+3 | anemia, cardiomegaly, placentomegalyPlacentomegaly, hepatomegaly, Polyhydramnios | Sacrococcygeal Teratoma | 30 | Pruritic rash, Edema, HTN, Epigastric pain, Proteinuria, Anemia, low Plt | intrauterine transfusion, thoracoamniotic shunting | 30 | SV | 1 |
| Lobato 2007 (47) | 28+2 | Hydrops fetalis, Polyhydramnios, Pericardial effusion, SubceutaneousSubcutaneous edema, Hepatosplenomegaly, Ascites, Placentomegaly, Anemia | RH | 28+2 | Edema, HTN, Maternal anemia, Low Hematocrit, Proteinuria, Elevated Uric Acid | INTRAUTERINE Intrauterine fetal transfusionFETAL TRANSFUSION, mytheldopamethyldopa | 32 | SV | 4 |
| Braun 2008 (48) | 25 +6 | Hydrops fetalis, Ascites, SubcutenousSubcutaneous edema, Placentomegaly, Pleural effusion | Ebstein’s Anomaly | 27 | Edema, Proteinuria | Digoxin, misoprostol | 26+6 | ND | 7 |
| Matsubara 2008 (49) | 23+2 | Two living fetuses (A+B) with PROM, one acardius: edema, placentomegalyPlacentomegaly | Monochorionic-Triamniotic- triplets with TTTS | 23+2 | Edema, HTN, Anemia, low HCT, Cardiomegaly, Proteinuria, | C\S | 23+5 | SV | 3 |
| Matsubara 2008 (50) | 21+3 | Polyhydramnios, Hydrops fetalis, Skin edema, Ascites, Pleural effusion, Hypertrophic cardiomegaly | Monochorionic-Twins  with FTTS | 21+3 | Weight gain, Anemia, Low albumin, Elevated HCG | Ffetoscopic laser  photocoagulation | 37 | SV | 10 |
| Ambrosini 2008 (51) | 26+5 | Hydrops fetalis, Ascites, Pericardial effusion, Polyhydramnios, Skin and placenta edema, Increased middle cerebral artery peak systolic velocity, Anemia | Coxsackie B virus | 27 | Dilution Anemia, Edema, Oliguria, Anemia, Cardiomyopathy, Hypotension, cyanosis | intrauterine transfusion | 27+3 | IUFD | 17 |
| Ibele 2008 (52) | 25+3 | Pericardial effusion, Placentomegaly, Polyhydramnios, Scalp edema, Ascites, Pericardial and pleural effusions. | Sacrococcygeal Teratoma | 27+2 | HTN, Edema, abnormal LFT | NR | 27+5 | SV | NR |
| Gerresheim 2009 (53) | 24 | Hydrops fetalis, Ascites, Pericardial effusion. | Ebstein’s Anomaly | 21 | Edema, Weight gain, HTN, ProteinureaProteinuria, Pleural effusion | Termination of Pregnancy | 24 weeks |  |  |
| McCan 2009 (54) | 21 | Hydrops fetalis, Placentomegaly, Scalp edema, Pericardial effusion | Ebstein’s Anomaly | 21 | AbodominalAbdominal Pain, Uterus Extended, LLE, Anxiety | induction of labor, lorazepam,  propranolpropranolol | 21+1 | sbSB | 1 |
| Gedikbasi 2010 (55) | 25+5 | hydrops fetalis | None | 25+5 | LLE, HTN, Proteinuria | Misoprostol | 27+5 | IUFD | 7 |
| Gedikbasi 2010 (55) | 20 | hydrops fetalis ,,PolyhydromniosPolyhydramnios, Placentomegaly | None | 24 | HTN, Proteinuria | Induction of LabourLabor | 24+6 | IUFD | 3 |
| Gedikbasi 2010 (55) | 26+1 | Isolated atriventricularatrioventricular canal defect, Arrhythmia, AscitisAscites, Pericardial effusion | None | 29 | Weight gain, Edema, HTN, Proteinuria, | C\S | 31+4 | ND | 14 |
| Gedikbasi 2010 (55) | 33+2 | Hydrops fetalis, AscitisAscites, Bradycardia, Hydrothorax, AVSD, Scalp edema | None | 33+2 | Edema, Weight gain, HTN, Proteinuria | None | 33+3 | IUFD | 2 |
| Kafali 2010 (56) | 28+2 | Placentomegaly, polyhydramnios, Skin and scalp edema, Ascites, Pericardial and pleural effusions, Anemia | Sacrococcygeal Teratoma | 28+2 | Right lumbar pain, LLE, Proteinuria, HTN, hydronephrosis | C\S | 28+4 | SB | 7 |
| Prefumo 2010 (57) | 21 | HydropHydrops fetalis, Intracranial hemorrhage, Placentomegaly | TTTS | 21 | HTN, Proteinuriea, Anemia | Bipolar cord occlusion of recepientrecipient,  Nifedipine | 22+6 | SB+ND | 7 |
| Nowakowska  2011 (58) | 27 | Hydrops fetalis, Pericardial effusion, Ascites, SubcutanousSubcutaneous edema, Pplacentomegaly | Parvovirus B19 | 27 | abnormal LFT, HTN, Proteinuria, low Plt, Elevated Uric Acid Andand Creatinine | FETAL Fetal TransfusionTRANSFUSION, termination of pregnancy | 28 | terminated | 10 |
| Deolivira 2011 (59) | 26+2 | Fetal hydrops, Placentoamegaly | CMV | 26 | HTN, Headaches, Visual Disturbance, Edema, Anemia, Proteinuria, sFlt-1 and PlGF= 14,699 pg/mLml, 239 pg/mLml respectivelyl, respectively | Magnesium Sulfate, Induction of Labor | 26+3 | ND | NR |
| Desvignes   2011 (60) | 23 | HydropesHydrops fetalis, Pleural effusion, AscitisAscites, Skin edema, Anemia | Parvovirus B19 | 37 | Edema, HTN, Anemia, Proteinuria, Headache | Pprocedural?? | NR | SV | Before delivery |
| Desvignes  2011 (60) | 26 | HydropesHydrops fetalis, Pericardial effusion, PlueralPleural effusion, SkindSkin edema, Anemia, OligohydromniousOligohydramnios, | Parvovirus B19 | 26 | Anemia, Elevated uric acideacid, | Procedural?? | 26 | Termination of pregnancy | 2 |
| Ren 2012 (61) | 26 | Hydrops setalisfetalis, abdomen | Fmal- Congenital  Laryngeal Stenosis | 24 | Edema, HTN, Maternal anemia ,, low HCT, Pulmonary Edema, Proteinuria, abnormal LFT | C\S | 26 | ND | NR |
| N. Graham 2012 (62) | 28+2 | HydropesHydrops fetalis, Ascites, supraventricular tachycardia, Polyhydramnios |  | 29 | Edema, Proteinuria, HTN, Elevated Uric Acid Andand Creatinine, Hypoalbuminemia, Coagulopathy, renal and hepatic impairment, Anuria, Pplacentomegaly | induction of labor | 29 | IUFD | 90 |
| Kate E Oliver 2012 (63) | 24 | hydropesHydrops fetalis in one twin, Atrioventricular canal malformatinon, pleural effusions, pericardialeffusions, pericardial effusion, ascites | Multiple Pregnancy TTTS | 24 | Proteinuria, elevated uric acid, LDH, Weight gain, Dyspnea, HTN | betamethasone, amnioreduction | 25 | IUFD+ SV | 14 |
| Lutgardo García-Díaz  2012 (64) | 29 | Hydrothorax, AscitisAscites, Anemia, Cardiomegaly, | Placental Chorioangioma | 29 | Edema, Oliguria, Anemia, abnormal LFT, Hypoproteinemia, Hypokalemia | betamethasone, intrauterine transfusion,  Atosiban, nifedipinnifedipine, C\S | 29+5 | ND | 2 |
| Llurba 2012 (65) | 28+2 | Bilateral hydrothorax, Ascites. |  | 28+2 | Edema, Weight Gain, Proteinuria | Intrauterine Pleuroamniotic Shunt, C\S | 38+2 | SV | 32+2 |
| Zhang 2013 (66) | 31 | Hydrops fetalis, Placentomegaly, Pericardia effusion, Ascites, Anemia, Polyhydramnios, Organomegaly | Alpha-thalassemia | 31 | HTN, Oliguria, Low ferrittin, anemia, low HCT | Magnesium Sulfate, Diuretics, steroid,  Cedilanid, Mitroglycerin, Induction of Labor | 31+4 | ND | 12 |
| Banner 2013 (67) | 27 | HydropesHydrops fetalis, Edema, AscitisAscites, AmbigiuosAmbiguous genitalia, Multiple anomalies | multiple anomalies, flu like symptoms for 3 days | 27 weekweeks | Edema, HTN, anemia, Low Hematocrit, Proteinuria, Oliguria, low Plt, PreclampsiaPreeclampsia, HeadachHeadache, Decreased fetal movement, Right side abdominal pain | Magnesium SulfateULPHATE, NARCOTICNarcotics,  ANTIEMETICSAnti-emeticsemetics, fetal paracentesis |  | SB | 2 |
| Goa S 2013 (68) | 22 | Subcutaneous edema, Ascites, Bilateral pleural effusion, Oligohydramnios, Placentomegaly, Anemia, Pericardial effusion, Tricuspid valve regurgitation, cardiomegaly | Parvovirus B19 | 22 | dyspnoea, Oliguria, Weight Gain, edema, Anemia, Hyperuricemia, proteinuria ,, Elevated liver enzyme, sFlt-1=17,703 pg/ml | Intrauterine Transfusion, Diuretics | 38 | svSV | 32 |
| Zhao 2013 (69) | 27+6 | Edema, Multi-hydrocele, Heart failure, Placental villous edema | Iso-immunizationIsoimmunization | 28+5 | Edema, Proteinuria, HTN, Headache, visual disturbance, Oliguria, Hemodilution anemia | Induction of labor | 29+1 | IUFD | 30 |
| Zhao 2013 (69) | 31+4 | Edema, Anemia, Giant placental chorioangioma, Villous edema | Parvovirus B19,  Placental Chorioangioma | 32 | Edema, Hemodilution anemia | C\S | 32+1 | ND | 10 |
| Zhao 2013 (69) | 28+3 | Edema, oligohydramnios, neuroblastoma | Adrenal Neuroblastoma  with systemic and placental metastasis | 27 | Edema, Proteinuria, HTN, abdominal pain, Headache, Oliguria, Ascites, Pulmonary Edema, Hemodilution anemia | Termination of Pregnancy | 28+6 | IUFD | 14 |
| Zhao 2013 (69) | 33+6 | Edema, Multi-hydrocele, Polyhydramnios | Unknown | 34+5 | Edema, Proteinuria, HTN, Headache, visual disturbance, Pulmonary Edema, Retinal Detachment, Ascites, Hemodilution anemia | Preterm Rupture of Membranes | 35+4 | SB | 3 |
| Zhao 2013 (69) | 38 | Heart malformation, VSD, Irregular heart beatsheartbeats, Multi-hydrocele | Heart Malformation,  arrhythmia | 39 | Edema, HTN, Proteinuria, Hemodilution | Amniotomy, Induction of labor | 40 | IUFD | 30 |
| Chai 2014 (70) | 24 | Fetal hydrops, Placentomegaly | Twin-Twin Transfusion  Syndrome TTTS | ? | LLE | Selective Feticide | 29 | SV | 8 |
| Chai 2014 (70) | 23+6 | Fetal hydrops, Placentomegaly | Twin-Twin Transfusion  Syndrome TTTS | ? | LLE, Vulval Edema, Oliguria | Selective Feticide | 25.1 | ND | 8 |
| Chai 2014 (70) | 28+2 | Fetal hydrops, Placentomegaly | Twin-Twin Transfusion  Syndrome TTTS | ? | LLE | C\S | 28.4 | R: ND D: Died in 7th month | 10 |
| Chai 2014 (70) | 21+3 | Fetal hydrops, Placentomegaly | Twin-Twin Transfusion  Syndrome TTTS | ? | LLE, Oliguria | induction Induction of labor | 21.3 | R: abortion D: abortion | 4 |
| Chai 2014 (70) | 19+4 | Fetal hydrops, Placentomegaly | Twin-Twin Transfusion  Syndrome TTTS | ? | LLE | amnioreduction, induction of labor | 21.4 | IUFD | 2 |
| Tayler 2014 (71) | 34+5 | Hydrops fetalis | Parvovirus B19 ,,  nephroltheiasis nephrolithiasis and UTI,  abscesses on her pannus | 34+5 | LLE, Vulvar Edema, sacral Edema, Weight Gain | C\S | 35 | ND | 2 |
| Chang YL 2014 (72) | 24 | HydrpsHydrops fetalis | Twin-Twin Transfusion  Syndrome TTTS | 24 | Pulmonary Edema, Skin Edema, Anemia, Low blood protein concentration, Proteinuria | Not mentioned | 36 | SV | before delivery |
| Li 2015 (73) | 23 | Hydrops fetalis, Placentomegaly, Pericardia effusion, AscitisAscites, Anemia ,, PolyhydrominiousPolyhydramnios, OrganomegalyAscites, NT, PlueralPleural Effusion, Skin Edema |  | 27 | Weight Gain, Edema, HTN, anemia, low HCT, Proteinuria, Pulmonary Edema, Dyspnea, BNP | steroidSteroids, AMNIOCENTESISAmniocentesis, FUROSMIDEFurosemide, GLYCERINGlycerin, CEDILANIDECedilanide, antibiotics, Artificial rupture of membrane, ISOSORBID Isosorbide DinitrateDiNITRATE, SPIRONALACTONESpironolactone | 27+5 | IUFD | 10 |
| Lee 2015 (74) | 28+2 | HydropesHydrops fetalis, PolyhydrmniousPolyhydramnios, Pleural effusion, Skin edema, Hepatosplenomegaly, DoudenalDuodenal atresia, Placentomegaly | Fmal, -Duodenal Atresia  megaloblastic LEUKEMIALeukemia, DOWN SYNDROME FEATURESDown syndrome features | 30+1 | Weight gain, Edema, HTN, Proteinuria, HypoalbonemiaHypoalbuminemia, BNP, Anemia, low HCT, CARDIOMEGALYCardiomegaly, PLEURAL Pleural EFFUSIONEffusion, Dyspnea, High BHCG | C\S | 31 | SV | 3 |
| KIciek 2015 (75) | 22 | HydropesHydrops fetalis, Subcutaneous edema, Hydrothorax, Ascites, Placentomegaly | UND | 22 | Edema, Anemia, Hypoproteinemia | C\S | 24 | IUFD | shortly after the delivery. |
| Patricia 2015 (76) | 24+5 | Hydrops fetalis | Sacrococcygeal Teratoma | 24+5 | LLE, HTN, abnormal LFT, Anemia, low HCT, low Plt | Magnesium Sulfate, Labetalol, Betamethasone, Blood Replacement Product | 25 | SV | 6 |
| Susan 2015 (77) | 26+4 | HydropesHydrops fetalis | Sacrococcygeal teratoma | 26+4 | HTN, Proteinuria, abnormal LFT | C\S | 31+4 |  | 3 |
| Iciek 2015 (75) | 16 | Cranial tissue edema, Abdominal tissue edema, Limbs face and cord edema, Hydrothorax, Pericardial effusion, Placentomegaly | None | 24 | Face and limbs edema, Oliguria, Anemia, Ascites, Dyspnea, Weight gain, Hypoproteinemia, low Plt, High C reactive protein, High D dimers | C\S | 22 weeks | IUFD | not mentioned |
| Hirata 2015 (78) | 29 | Fetal hydrops, Skin edema, Placentomegaly | Ebstein’s Anomaly,  12 Trisomy Mosaic | 30+4 | Pulmonary edema, Headache, HTN, Weight gain |  | 30+6 | 5 out of 10 = IUFD | 3 |
| Hirata 2015 (78) | 29+4 | Fetal hydrops, Skin edema, Placentomegaly | Chylothorax | 31+2 | Not Mentioned |  | 35 | 5 out of 10 = IUFD | 1 |
| Hirata 2015 (78) | 31 | Fetal hydrops, Skin edema, Placentomegaly | Chylothorax | 33+6 | HTN |  | 34+1 | 5 out of 10 = IUFD | 1 |
| Hirata 2015 (78) | 19 | Fetal hydrops, Skin edema, Placentomegaly | Unknown | 22+3 | HTN, Pleural effusion |  | 23+3 | 5 out of 10 = IUFD | 2 |
| Hirata 2015 (78) | 32+5 | Fetal hydrops, Skin edema, Placentomegaly | Ebstein’s Anomaly | 34+4 | HTN, Pleural effusion |  | 35+1 | 5 out of 10 = IUFD | 3 |
| Hirata 2015 (78) | 29+6 | Fetal hydrops, Skin edema, Placentomegaly | Chylothorax | 33+1 | Pleural effusion |  | 33+6 | 5 out of 10 = IUFD | 3 |
| Hirata 2015 (78) | 20+5 | Fetal hydrops, Skin edema, Placentomegaly | Unknown | 21+5 | HTN |  | 21+6 | 5 out of 10 = IUFD | 1 |
| Hirata 2015 (78) | 31 | Fetal hydrops, Skin edema, Placentomegaly | Tachyarrhythmia  (Costello Syndrome) | 31 | Vomiting |  | 31+0 | 5 out of 10 = IUFD | 2 |
| Hirata 2015 (78) | 19+2 | Fetal hydrops, Skin edema, Placentomegaly | Unknown | 20+3 | Vomiting, Anuria |  | 21+0 | 5 out of 10 = IUFD | not mentioned |
| Kobayashi 2015 (79) | 24 | Hydrops fetalis, pericardial effusion, Asciteseffusion, Ascites, Skin Edema, AVSD, valvular disease, Cystic mass, Hepatosplenomegaly, hyperechoic bowel, anemia, oliguhydrominiosoligohydramnios, Pulmonary Hypoplasia | Transient Abnormal  Myelopoiesis in Down syndrome | 26 | Weight gain, Anemia, low HCT, Elevated uric acid, Pulmonary edema | C\S | 27 | ND |  |
| Okby 2015 (80) | 23+3 | Hydrops fetalis, Polyhydramnios, Hypoplastic left heart, Brachycephalic head with hypomineralization, Abnormal gyration, Bilateral femoral fractures, Placentomegaly | twin | 23+3 | HTN, LLE, Proteinuria, Anemia, Elevated creatinine, Hematuria, visual disturbance | Selective feticide | 27 | IUFD | 14 |
| Case 1 (this study) 2016 | 19+5 | Skin edema, Ascites, increased nuchal transulancytranslucency, pleural effusion | FT-cystic hygroma, abnormal cerebellum | 24+4 | Edema, HTN, Anemia, High creatinincreatinine, Dyspnea, abnormal LFT, High prothrombin time, Decreased function of protien protein c and s, HEADACHE, VISUAL disturbance | Induction of labor | 26 | IUFD | 3 |
| Case 2 (this study) 2016 | 28 | Pleural effusion, AscitisAscites, anemia, high TSH | Toxoplasmosis | 27 | Edema, HTN, Proteinuria, Elevated Uric Acid, Dyspnea, anemia, abnormal LFT | supporativeSupportive | 31 | ND | 1 |
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