VERSITA

Cent. Eur. J. Med. • 8(4) • 2013 • 434-435
DOI: 10.2478/s11536-012-0140-7

Central European Journal of **Medicine**

Letter to Editor: Impact of labor on uterine scar healing

Letter to the Editor

Stéphanie Roberge[1],
Emmanuel Bujold[1,2]*

1 Department of Social and Preventive Medicine, Université Laval, Québec, Qc, Canada

2 Department of Obstetrics and Gynecology, Faculty of Medicine, Université Laval, Québec, Qc, Canada

Received 31 July 2012; Accepted 20 December 2012

Abstract: Ultrasound of uterine scar after cesarean and measurement of its thickness can be used to evaluate its healing and risk factors for scar defect and uterine rupture. However, we believe that a period of up to 6 months after surgery is necessary to achieve complete healing of the scar, especially in cases of cesarean performed during labor.

To the Editor,

We read with great interest the article by Dosedla et al. who compared the integrity of the uterine scar after elective and urgent caesarean section using ultrasonography [1]. While we agree that ultrasound can be a non-invasive and useful technique for the assessment of cesarean scar after delivery, we are challenging their conclusion that urgent cesarean has a higher risk of severe scar defect than elective cesarean, based on the scar's thickness measurement evaluated 6 weeks after delivery.

We believe that the interpretation of the scar's thickness is controversial when measured so early after delivery. Dicle et al. suggested that uterine scar healing takes at least 6 months to be completed and to our knowledge, it is unclear whether the thinning of uterine isthmus that occurs during labor is completely resolved 6 weeks after delivery [2]. It could be very important to repeat the measurement and the comparison at 6 months after cesarean and see if the difference between the two groups remains.

Looking at the literature, we noted that the results from Osser et al. are in agreement with the current study: they found a higher risk of scar defect with cesarean during labor compared to elective cesarean [3]. However, these data are limited by the fact that they did not observe any case of uterine scar located below the internal cervical os, which is quite unusual according to our experience and to Stirnemann et al. [4]. In that latter study, they found that labor does not have any effect on scar defect evaluated at the first trimester of the next pregnancy. In contrast, Jastrow et al. found that labor at cesarean was associated with thicker low uterine segment evaluated between 35 and 38 weeks' of the next pregnancy and Algert et al., found that an elective cesarean was associated with a higher risk of complete uterine rupture at the next delivery than cesarean in labor [5,6]. Therefore, we believe that the effect of labor on uterine scar healing remains controversial and we strongly suggest long-term follow-up including uterine scar evaluation using ultrasound at 6 months or more and in the next pregnancies [2].

Conflict of interest

The authors have no financial or other conflict of interest to disclose.

* *E-mail: emmanuel.bujold@crchul.ulaval.ca*

Funding

Dr. Emmanuel Bujold holds a Clinician Scientist Award from the Canadian Institute for Health Research and the Jeanne et Jean-Louis Lévesque Research Chair at Université Laval. Stephanie Roberge holds a holds a PhD study Award (Réseau de formation en recherche périnatale du Quebec) from the Canadian Institutes of Health Research.

References

[1] Dosedla E, Kvasnicka T, Calda P. Ultrasonography of the uterus within 6 weeks following cesarean section. Central European Journal of Medicine. 2012;7:235-240

[2] Dicle O, Kucukler C, Pirnar T, Erata Y, Posaci C. Magnetic resonance imaging evaluation of incision healing after cesarean sections. Eur Radiol. 1997;7:31-34

[3] Osser OV, Valentin L. Risk factors for incomplete healing of the uterine incision after caesarean section. Bjog-an International Journal of Obstetrics and Gynaecology. 2010;117:1119-1126

[4] Stirnemann JJ, Chalouhi GE, Forner S, Saidji Y, Salomon LJ, Bernard JP, Ville Y. First-trimester uterine scar assessment by transvaginal ultrasound. Am J Obstet Gynecol. 2011;205:551 e551-556

[5] Jastrow N, Gauthier RJ, Gagnon G, Leroux N, Beaudoin F, Bujold E. Impact of labor at prior cesarean on lower uterine segment thickness in subsequent pregnancy. Am J Obstet Gynecol. 2010;202:563 e561-567

[6] Algert CS, Morris JM, Simpson JM, Ford JB, Roberts CL. Labor before a primary cesarean delivery: Reduced risk of uterine rupture in a subsequent trial of labor for vaginal birth after cesarean. Obstet Gynecol. 2008;112:1061-1066