

Uterine scar sonographic evaluation during the postpartum: pleading for extra-decidual suturing during cesarean section

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Objective

To evaluate ultrasound differences in uterine scar between techniques using extra mucosal suturing and full thickness suturing of the uterine incision.

Methods

A retrospective observational study included cases of first-time cesarean section from 2008 to 2018. The patients were monitored for six weeks postpartum and were routinely checked by ultrasound. The operator evaluated two elements in a sagittal view using the endovaginal approach: the thickness of the uterine scar and the presence of a defect (niche), measuring it by surface in mm. The patients operated on using a running suture technique for the full thickness uterine scar including the mucosa (group 1) were compared with patients operated on by the same operator, with the same technique except that the suture was extra-mucosal full length (group 2). The operator switched from the running suture technique to extra-mucosal in 2013.

Results

The study included 241 patients, and a total of 115 cases in group 1 were compared to 126 cases in group 2. There were no significant differences in age or body mass index between the two groups. In both groups, there was a significant difference in both uterine scar thickness ($p = 0,02$) and the presence and size of the niche ($p = 0.001$) in transvaginal ultrasound performed six weeks postpartum.

Conclusion

Extra-mucosal suturing of the uterus appears to be effective during the postpartum ultrasound evaluation. This could be vital in decreasing the risk of invasive placental problems in future pregnancies. [Manuscript submitted to AOGS for publication].