

Pelvic floor trauma: does the second baby matter?

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Abstract

OBJECTIVE:

To ascertain the effect of a second delivery on pelvic floor anatomy.

METHODS:

This was a retrospective analysis of data obtained in two perinatal imaging studies. Women were invited for antenatal and two postnatal appointments. All had answered a standardized questionnaire and undergone a clinical examination and translabial four-dimensional ultrasound. Ultrasound volumes were acquired at rest, on Valsalva maneuver and on pelvic floor muscle contraction, and analyzed by postprocessing on a PC. Avulsion was diagnosed on tomographic ultrasound imaging. This study reports data obtained in those women who delivered a second child between the first and second postnatal assessments.

RESULTS:

Of 715 participants, 94 reported a second birth at their second postnatal appointment on average 2.7 years after their first birth; 65 had a vaginal delivery and 29 a Cesarean section. There were nine attempts at vaginal birth after Cesarean section (VBAC), of which six were successful. When we analyzed the ultrasound findings before and after a second delivery, there was no significant change observed in bladder-neck descent, cystocele descent and hiatal area on Valsalva. Delivery mode of the second birth seemed to have little effect on changes observed between follow-ups, although there was a trend towards increased bladder-neck descent in women after vaginal delivery. On reviewing patients diagnosed with avulsion at their 2-3-year visit and comparing them with findings at the first follow-up visit, we found identical (normal) findings in 87 cases. In five there was an unchanged avulsion. In one case, findings had improved from complete to partial avulsion. There was one new avulsion, in a patient who had delivered her first baby by emergency Cesarean section and her second by vacuum delivery.

CONCLUSIONS:

A second pregnancy and delivery do not seem to have a major effect on bladder support and/or levator function. However, we documented a case of major levator trauma after VBAC. The issue of pelvic floor trauma after VBAC may have to be investigated further.