

PREVALENCE AND TRENDS OF SYMPTOMATIC PELVIC FLOOR DISORDERS BEFORE AND SIX WEEKS AFTER THE FIRST DELIVERY – LONGITUDINAL STUDY

Hypothesis / aims of study

The aim of our study is to report the objective incidence of pelvic floor disorders before and after the delivery in primiparous patients.

Many women report pelvic floor disorders (PFD) during pregnancy or after childbirth. For some women these disorders resolve with postpartum healing, but for others they become long-lasting. In this study we focused on the presence and frequency of pelvic floor disorders before, during and six weeks after the first delivery

Study design, materials and methods

This is a single center study, open and prospective. During the time period 05/2011 – 09/2012 we examined 1226 patients. It is part of a large longitudinal project focused on pelvic floor changes in pregnancy and after delivery. We examine women before pregnancy and the same women in the first trimester and 6 weeks after delivery. In our protocol the women are also examined 6 months and 1 year after delivery, but those data are not included in this study. Patients have been examined vaginally in supine position after voiding. POP-Q score is assessed and ultrasound 4D volume is taken at rest, upon maximal pelvic floor contraction and during Valsalva. We excluded multiple pregnancies and breech presentations. Morphological parameters of the urogenital hiatus are assessed using 4D View® software. Information of pelvic floor function was completed by filling in the PISQ 12 and ICIQ-SF questionnaires. In the first stage of labour the abdominal ultrasound scan for fetal head and rump position to select fetuses in occiput-posterior position. Obstetric data were also noted: first stage duration, second stage duration and the type of perineal trauma.

Results

The mean age was 30.6±3.6 years (range 17-46), mean BMI 27.5±3.7 kg/m² (range 18.6-47.3). Of the 1226 women 73.9% had delivered vaginally (VD), 2.2 % with forceps delivery and 23.9% delivered by Caesarean section (CS) of whose 4.1% were elective, 19.5% were acute. Occiput-posterior position was present in 45.4% women. Only 5.9% of women complained of stress urinary incontinence (SUI) and 1.9% of OAB symptoms before pregnancy. During pregnancy 27.3% of women complained of SUI and 5.2% of OAB symptoms. Six weeks after the first delivery 27.3% of women complained of SUI and 3.5% of OAB symptoms. The incidence of SUI and OAB symptoms before pregnancy was the same without dependence of later mode of delivery (SUI: 6.2%-VD vs. 4.8% CS, OAB: 2.0%-VD vs. 1.4% CS). The incidence of SUI and OAB symptoms during pregnancy was the same without dependence of later mode of delivery (SUI: 27.8%-VD vs. 25.9% CS, OAB: 5.6%-VD vs. 4.1% CS). The incidence of SUI and OAB symptoms six weeks after pregnancy was statistically higher in the VD group (SUI: 31.9%-VD vs. 12.6% CS, OAB: 4.7%-VD vs. 1.0% CS). Levator ani injuries were diagnosed in 225 (18.5%) (only in vaginally parous women). Vaginal delivery was associated with statistically significant worsened POP-Q values (especially point Ba, C). Ba point was ≥ 0 in 109 women. Point C was ≥ -3 in 27 women. Six weeks after the first delivery 68.5% of women are sexually active (dyspareunia 12.4%)

Interpretation of results

Women with history of vaginal delivery are more likely to develop bothersome symptoms of pelvic disorders six weeks after the delivery. The incidence of major levator ani trauma was 18.5%. We found no avulsion in patients after cesarean section. Avulsion injuries are associated with severe defects in anterior and central compartment. Women who deliver vaginally complain more often of symptoms of SUI and OAB than women who deliver by Caesarean Section and they also have significantly worse POP-Q scores.

Concluding message

Six weeks after delivery significantly higher number of women who delivered vaginally suffers from SUI and OAB than those who delivered by Caesarean Section. Caesarean Section seems to have protective effect on pelvic floor, in women who delivered by CS we found no avulsion injuries using ultrasound.

Disclosures

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