

Title: Preferences Regarding Mode of Delivery in Primiparous Women with Perineal Laceration

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Objectives: To determine preference regarding mode of delivery in future pregnancies amongst primiparous women who sustained an anal sphincter laceration (ASL) as compared to primiparous women who did not sustain an ASL.

Methods: This was a pilot prospective cohort study. Primiparous women who sustained a clinically recognized ASL during delivery (sphincter laceration cohort) and women who sustained a first or second degree perineal laceration during delivery (control cohort) were approached for study participation in a 1:2 ratio. Women ≥ 18 years of age who delivered a liveborn, term (≥ 37 weeks gestational age), singleton, cephalic presentation infant were eligible for participation. Relevant demographic and maternal/infant clinical data was collected at time of delivery. Questionnaires were administered at 6 months postpartum. The short form Pelvic Floor Distress Inventory (PFDI-20) was used to assess the presence or absence of fecal incontinence, urinary incontinence, and other pelvic symptoms and symptom-related bother. The short form Pelvic Floor Impact Questionnaire (PFIQ-7) was used to assess functional quality of life. A single question, “If I imagine myself having another pregnancy, for my next delivery I would prefer

(choose vaginal delivery or cesarean delivery)” was used to assess future mode of delivery preference.

Results: A total of 114 eligible women were enrolled in the study. 86 women completed the questionnaires at 6 months postpartum (responders). Descriptive characteristics of the responders by cohort are listed in Table 1. Women in the sphincter laceration cohort were more likely to have undergone a vacuum or forceps –assisted vaginal delivery (26.7% versus 7.1%; $P = .02$), episiotomy (40% versus 10.9%; $P = .002$) and express a preference for cesarean delivery with a future pregnancy (27.6% versus 1.8%; $P = .001$). There were no differences in PFDI-20 and PFIQ-7 scores between cohorts. When the women in the sphincter laceration cohort who expressed a preference for cesarean delivery with a future pregnancy were compared to women who preferred vaginal delivery, there was no difference in type of delivery, use of episiotomy, PFDI-20 or PFIQ-7 scores.

Conclusion: Primiparous women sustaining a sphincter laceration at delivery are more likely to express a preference for cesarean delivery with future pregnancy as compared to women with a first or second degree laceration. This preference does not appear to be related to fecal incontinence, urinary incontinence, other pelvic symptoms or difference in functional quality of life at 6 months postpartum as measured by the PFDI-20 or PFIQ-7. Other factors such as immediate postpartum pain and physician counseling may be contributing to the differences in preference.

Table 1. Characteristics of controls versus sphincter laceration group (N = 86)

| | Control group (N = 56) | Sphincter laceration group (N = 30) | P |
|------------------------------|-----------------------------------|--|----------|
| Age (years)* | 28.9 ± 4.4 | 29.5 ± 4.4 | .75 |
| Race | | | |
| White | 54 (96.5%) | 27 (90%) | .34 |
| African-American | 1 (1.8%) | 1 (3.3%) | |
| Asian | 1 (1.8%) | 1 (3.3%) | |
| Other | 0 (0%) | 1 (3.3%) | |
| Maternal smoking status† | | | |
| Nonsmoker | 47 (85.5%) | 28 (93.3%) | .48 |
| Current smoker | 3 (5.5%) | 1 (3.3%) | |
| History of smoking | 5 (9.1%) | 1 (3.3%) | |
| Type of delivery | | | |
| Spontaneous | 52 (92.9%) | 22 (73.3%) | .02 |
| Vacuum-assisted | 2 (3.6%) | 5 (16.7%) | |
| Forceps-assisted | 2 (3.6%) | 3 (10.0%) | |
| Episiotomy† | | | |
| None | 49 (89.1%) | 18 (60.0%) | .002 |
| Median | 5 (9.1%) | 11 (36.7%) | |
| Mediolateral | 1 (1.8%) | 1 (3.3%) | |
| Degree of laceration | | | |
| 1 st | 9 (16.1%) | -- | N/A |
| 2 nd | 47 (83.9%) | -- | |
| 3 rd | -- | 28 (93.3%) | |
| 4 th | -- | 2 (6.7%) | |
| Epidural anesthesia† | | | |
| Yes | 48 (85.7%) | 26 (89.7%) | .74 |
| No | 8 (14.3%) | 3 (10.3%) | |
| Infant birthweight (g)* | 3339 ± 519 | 3449 ± 409 | .34 |
| Infant position at crowning† | | | |
| Occiput anterior | 24 (82.8%) | 11 (64.7%) | .17 |
| Occiput posterior | 5 (17.2%) | 6 (35.3%) | |

*Mean ± SD

†Data missing