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Factors Associated With Timing of Return to Intercourse After Obstetric Anal Sphincter Injuries

Alix Leader-Cramer, MD,[1,2] Kimberly Kenton, MD, MS,[1,2] Bhumy Davé, MD,[1,2] Dana R. Gossett, MD, MSCI,[1] Margaret Mueller, MD,[1,2] and Christina Lewicky-Gaupp, MD[1,2]

ABSTRACT

Introduction: The impact of obstetric perineal trauma on timing of return to intercourse is unclear, although sexual desire is clearly decreased in these women. In addition, studies examining timing of return to intercourse are cross-sectional and therefore cannot delineate potential reasons that patients might delay return to intercourse.

Aim: To identify factors associated with delayed return to intercourse after obstetric anal sphincter injuries.

Methods: This was a planned secondary analysis of a prospective cohort study of women sustaining obstetric anal sphincter injuries during delivery of a full-term singleton infant. Patients completed the Fecal Incontinence Severity Index at every postpartum visit (1, 2, 6, and 12 weeks) and the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire-12 once resuming vaginal intercourse. Intercourse was considered "delayed" if patients did not resume intercourse by the 12-week visit. This cutoff was chosen because it was subsequent to the 6-week visit, when patients were instructed to return to normal pelvic activity. Continuous variables were compared using the Student t-test (parametric) or Mann-Whitney U-test (non-parametric). The χ^2 test was used for categorical variables. Statistical significance was assigned with a P value less than .05.

Main Outcome Measures: Primary outcome measurements were differences in pelvic floor symptoms on validated surveys between the "delayed" and "not-delayed" groups at the first postpartum visit and at the time the subjects returned to intercourse. We used the Patient Health Questionnaire-9 for depression, the Urinary Distress Inventory-6 and Incontinence Impact Questionnaire-7 for urinary symptoms, the visual analog scale for pain, the Fecal Incontinence Severity Index for bowel symptoms, and the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire-12 at the return to intercourse visit only.

Results: One hundred ninety-nine women were included in this analysis. Most were Caucasian (77%) and primiparous (86%). One hundred nineteen women (60%) did not resume vaginal intercourse until after the 12-week visit and were deemed "delayed." Patients who delayed intercourse scored higher on the Fecal Incontinence Severity Index (more anal incontinence) than those who resumed intercourse before 12 weeks (15.4 ± 12.3 vs 12.0 ± 12.8, $P = .02$). The delayed group also had worse sexual function, shown as lower Pelvic Organ Prolapse/Incontinence Sexual Questionnaire-12 scores (35.4 ± 5.9 vs 38.4 ± 4.1, $P \leq .001$) and persistently higher Fecal Incontinence Severity Index scores (4.1 ± 7.3 vs 1.6 ± 4.4, $P = .001$), at the first visit after returning to intercourse.

Conclusion: Patients with obstetric anal sphincter injuries who do not resume intercourse by 12 weeks postpartum report more severe anal incontinence symptoms and worse sexual function after return to coitus.

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Key Words: Anal Incontinence; Fecal Incontinence; Obstetric Anal Sphincter Injury; Sexual Dysfunction

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[1]Department of Obstetrics and Gynecology, Northwestern University, Chicago, IL, USA;

[2]Division of Female Pelvic Medicine and Reconstructive Surgery, Northwestern University, Chicago, IL, USA

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INTRODUCTION

Postpartum sexual dysfunction in women is as high as 41% to 83% in the first 2 to 3 months after delivery.[1–3] Multiple factors contribute to sexual function, especially in the postpartum period, including fatigue, stress, relationship factors, body image, hormones, breastfeeding, pain, and mode of delivery.[4,5] Retrospective studies have found that operative vaginal delivery and higher degrees of perineal trauma are independent risk factors for dyspareunia, which can last for as long as 6 months postpartum.[6]

Although the incidence of obstetric anal sphincter injuries (OASIS) has decreased with increasing cesarean delivery rates and decreasing use of episiotomy and forceps, it remains a persistent issue for obstetric patients.[7,8] Studies on the impact of severe tears and timing of return to coitus have yielded conflicting results,[1,6,9,10] although data have shown that women with major perineal trauma have decreased sexual desire.[1] In addition, the studies examining timing of return to intercourse are cross-sectional[2] and therefore cannot delineate potential reasons that patients might delay return to intercourse.

The For Optimal Recovery: Care After Severe Tears (FORCAST) study[11] was a longitudinal prospective cohort study of women who sustained OASIS at a freestanding, tertiary care women's hospital and provided a unique opportunity to follow postpartum women over time. The primary aim of this cohort analysis was to identify factors associated with delayed return to coitus after OASIS in this well-characterized group of women.

METHODS

We conducted a retrospective planned secondary analysis of a prospective cohort study of women who sustained OASIS during vaginal delivery of a full-term singleton infant at a tertiary care institution from September 2011 through April 2014. Women were eligible for inclusion in the parent study if they delivered a singleton infant at a minimum of 37 weeks of gestation, sustained a third- or fourth-degree laceration, and had the consent of their primary obstetrician. Eligible participants were approached for participation while still in the hospital or by telephone within 1 week of delivery. The institutional review board approved the study (STU00031398).

Consenting participants were seen in the female pelvic medicine and reconstructive surgery clinic at 1, 2, 6, and 12 weeks postpartum and then annually for a standardized evaluation, including perineal examination and completion of validated pelvic floor symptom questionnaires. Patients were seen more frequently as clinically determined by one of three board-certified female pelvic medicine and reconstructive surgery specialists. Demographic and birth data were collected using the Enterprise Data Warehouse, an electronic repository of all clinical data from inpatient and outpatient electronic medical records. Wound infection was defined as at least three of the following at the perineal wound site: erythema, heat, purulent discharge, and/or edema. Wound breakdown, defined as wound separation of at least 2 cm, also was documented at each visit.[11]

At every visit, women completed the Patient Health Questionnaire-9 (PHQ-9), the Urinary Distress Inventory-6 (UDI-6), the Incontinence Impact Questionnaire-7 (IIQ-7), a visual analog scale (VAS) for pain, and the Fecal Incontinence Severity Index (FISI). Patients were asked at each visit whether vaginal intercourse had been resumed since delivery. The postpartum visit in which patients reported the first episode of vaginal intercourse after delivery was deemed the return to intercourse visit. At the return to intercourse visit, the subject completed the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire-12 (PISQ-12).

The PHQ-9 is a validated depression inventory for postpartum women.[12–14] Depression was defined as a score of at least 10 on the PHQ-9 (indicating moderate depression) at any time during the patient's follow-up period. The UDI-6 is a six-item inventory assessing bother from urinary symptoms, with higher scores indicating more bother.[15] Similarly, the IIQ-7 is a seven-item questionnaire assessing urinary-related quality of life, with lower scores indicating better quality of life.[15,16] A standard VAS for pain was used,[17] with a range of 0 to 100, with 100 indicating maximum pain. The FISI assesses a patient's perception of fecal incontinence severity.[18] Higher FISI scores indicate more severe anal incontinence symptoms. Fecal incontinence was defined as a positive response on the FISI to incontinence of liquid or solid stool at any point during the postpartum course regardless of severity. The PISQ-12 is a validated questionnaire to assess sexual function in women with urinary incontinence and/or pelvic organ prolapse, where lower scores indicate more sexual dysfunction.[19,20]

We considered vaginal intercourse "delayed" if the patient did not resume intercourse by her 12-week visit. This cutoff was chosen because it was subsequent to the 6-week visit, when patients were instructed to return to normal pelvic activity. Patients were excluded from this analysis if they were lost to follow-up before the 12-week visit. Validated survey data from the visit at which the patient first reported return to coitus postpartum also were analyzed. Thirty-two patients in the delayed category attended the 12-week visit but did not return for additional visits. Thus, data after returning to intercourse could not be analyzed for these participants, because timing of return to coitus could not be established.

The return to intercourse visit differed in timing between subjects depending on when a subject reported return to coitus. Thus, survey data from the first postpartum visit were always compared with survey data from the return to intercourse visit.

SPSS 20 (SPSS, Inc, Chicago, IL, USA) was used for statistical analysis. Variables were compared between not-delayed and delayed vaginal intercourse groups. Categorical statistical analysis was performed using the χ^2 test of association. Continuous data points were assessed for normalcy using histograms and the Kolmogorov-Smirnov test and compared using an independent-samples t-test or Mann-Whitney U-test as appropriate. Survey data were compared using a Wilcoxon signed-rank test. This was performed for the entire cohort and for the delayed and not-delayed groups individually.

The primary outcome measurements were comparisons in pelvic floor symptoms between the delayed and not-delayed groups and included differences in total scores on various validated questionnaires at the first postpartum visit and at the time the subjects returned to intercourse. Three individual