

## IS THERE AN ASSOCIATION BETWEEN STRIAE GRAVIDRUM AND 3RD & 4TH DEGREE PERINEAL TEARS AND OASIS?

### Hypothesis / aims of study

Obstetric anal sphincter injuries (OASIS) include third and fourth degree tears which are serious sequelae of vaginal birth(1) . OASIS are diagnosed in the delivery room and have short and long term implications. Women who had OASIS reported fecal and flatus incontinence, fecal urgency, and urinary incontinence (2); social isolation and psychological effects such as impaired self-esteem and sexuality (2), which negatively affected the quality of life (2). Based on a previous study that we conducted, Striae Gravidarum (SG), also known as stretch marks, especially on the hips and chest; predicted first and second degree perineal tears (3). The aim of the present study was to measure the association between third and fourth degree vaginal tears and Striae Gravidarum, as well as to measure their implications on women's quality of life in the short and long term in regard to urinary incontinence, fecal /flatus incontinence, and dyspareunia, at 6 and 12 months after delivery.

### Study design, materials and methods

This prospective, cross-sectional study was conducted at four university teaching medical centers. The demographic, medical, and obstetric data were collected from the medical files by a single midwife at each medical center. Eighty women who were diagnosed after a vaginal birth with third or four degree perineal tears were asked to participate in the study. After informed consent, the midwife interviewed the woman and assessed for SG. Severity scoring of SG was observed using the numerical scoring system of Atwal et al (2006). This scale provides rank based on observation of four areas in which SG is the most commonly observed (abdomen, hips, buttocks and breast). All women that were diagnosed with levels 3A, 3B, 3C, and 4 of perineal tear, were examined on the postpartum unit within 1-2 days after delivery. The assessment of SG was performed at each hospital by a single midwife who did not participate in any facet of the delivery process. The responses of the midwives were compared thus ensuring Inter-rater reliability. Subsequently, the same midwife collected all medical and demographic data from medical files. The Pelvic Floor Symptom Bother Questionnaire" (PFBQ) (Lipschuetz et al., 2015), a validated structured questionnaire was used for the follow-up assessment by telephone for pelvic floor dysfunction 6 and 12 months after delivery. The Alpha Cronbach of the current study was 0.57. Our estimation of a sample size requirement for this study was based on power analysis using the G\*Power 3 program (Faul, Erdfelder, Lang, & Buchner, 2007).

### Results

During the first part of the study, 80 women were enlisted, interviewed and assessed for SG. For the second part of the study, follow-up interviews were conducted at 6 months and 12 month. Younger, primipara women, with no past abortions and epidural administration had a longer second stage of delivery, and, were more prone to SG. OASIS degree and SG were not significantly related to urinary, fecal /flatus impairment, or dyspareunia at 6 and 12 months. While this is most likely due to the small sub-groups, several trends may be noted. Six months urinary impairment tended to be more prevalent among women with SG (41%) than among women without SG (21%). Dyspareunia at 6 months tended to be more prevalent among women with SG (48%) than among women without SG (31%). Furthermore, 6 months urinary impairment tended to be more prevalent among women with 3B and 4<sup>th</sup> degree perineal tears (50%) than among women with 3A degree perineal tears (26%). However, dyspareunia at 6 and 12 months tended to be more prevalent among women with 3A degree perineal tears (46% and 30%, respectively) than among women with 3B to 4<sup>th</sup> degree perineal tears (17% for both). A difference between women with 3A degree perineal tears and women with 3B to 4<sup>th</sup> degree perineal tears was detected only for one variable: oil use for preventive care. A greater percent perineal tears occurred in women in cases when oil was not used for preventive care and resulted in 3B to 4<sup>th</sup> degree perineal tears (45.0% of 40), than women in cases when oil was used for preventive care (15.8% of 19) ( $\chi^2(1) = 4.79, p = .029$ ).

### Interpretation of results

No significant association was found between third-degree and fourth-degree vaginal tears and SG. The main problem of women with high-grade tears was urinary impairment and the increase in the number of women who reported on the status of OASIS during the first year of birth was significant. Oil use may assist in lowering the degree of perineal tears.

### Concluding message

The innovation of this research is the added data on OASIS during the first year after birth and its implication on women's quality of life. Since oil use has demonstrated efficiency, education initiatives should be initiated to improve awareness and level of practice among midwives and women.

### References

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### Disclosures

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