

ANAL INCONTINENCE AND SEXUAL PROBLEMS IN WOMEN WITH EPISIOTOMY - A MATCHED CASE-CONTROL STUDY

Hypothesis / aims of study

Postpartum anal incontinence (AI), urinary incontinence (UI), and sexual dysfunctions are all distressing health problems that have potentially detrimental effects on the quality of life faced by women. Obstetric anal sphincter injuries (OASIS) are responsible for significant morbidity, causing AI in 30 to 50% of the injured women, despite an adequate primary repair. As well, these injuries can lead to both UI and sexual dysfunction (1). Although to a lesser extent, other identified risk factors for pelvic floor dysfunctions include receiving an episiotomy and instrumental delivery (2). We intend to estimate the prevalence of postpartum anal incontinence, urinary incontinence and sexual problems in a case-control study where all women have had only one vaginal birth, and each has undergone an episiotomy. The cases and controls have been matched for instrumental delivery, the episiotomy technique has been assessed and the cases had OASIS.

Study design, materials and methods

A matched case-control study carried out at the University Hospital of North Norway and Nordland Hospital. Women were included in the study if they had one vaginal delivery only and an associated episiotomy.

This was a part of another study investigating the geometric properties of the episiotomy and its associations with OASIS. Power calculation was done in relation to prove difference in episiotomy characteristics. We used results from Andrews et al.(3) undertaken for episiotomy angle, with an anticipated difference of 11° between groups, with a standard deviation of 13°, giving a significance level of 5%, and power of 90%. The sample size required 37 women in each group.

Cases were women with clinically identified OASIS, while controls had not. Cases and controls were matched for ventouse/forceps. Seventy-four women were willing to participate, signed a written consent and were called into an examination.

The examination (on average 34.5 months after birth in cases and 25.9 months in controls) was divided into two parts.

First, obstetrical information was confirmed, and then details of bowel, urinary, and sexual problems were registered using St. Marks, ICIQ-UI-SF and a Sexual Problem Questionnaire.

Then the vaginal introitus/perineum was investigated for the episiotomy scar, and a picture was taken. Adobe Photoshop was used to draw all relevant lines onto the photographs. The drawing and measuring of the episiotomy characteristics were performed once by a computer drafter and an experienced obstetrician, both blinded, and once with the computer drafter and the investigator.

Results

Cases experienced significantly more AI compared to controls, 15 (41%) versus 3 (8%), $p = 0.05$. Women in the case group reported significantly more sexual problem compared to the controls (9.9 vs. 12.6, $p = 0.04$).

Interpretation of results

The findings from this matched case-control study show that women with OASIS have significantly more AI and sexual problems compared to women without OASIS. Previous study found that the episiotomy in the control group was significantly longer deeper and with an incision point significantly further away from the midline compare to the case group. This suggests that women who have episiotomy characteristics that are associated with a decreased risk of OASIS have better functional outcomes.

Concluding message

Women without OASIS and episiotomies which are longer, deeper and placed lateral to the midline have significantly less anal incontinence and sexual problems than women with OASIS and episiotomies which are smaller, more narrow and placed closer to the midline.

References

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3. Andrews V, Sultan AH, Thakar R, Jones PW. Risk factors for obstetric anal sphincter injury: a prospective study. *Birth* 2006; 33:117-122.

Disclosures

Funding: This Study was supported by grant from the Northern Norway Regional Health Authority **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Approval for the study was given by the Regional Ethics Committee North Norway (163/2008) and all participants gave informed consent to participate **Helsinki:** Yes **Informed Consent:** Yes