

RIGHT MEDIOLATERAL EPISIOTOMY AND ANAL SPHINCTER INJURY IN PRIMIPAROUS WOMEN DURING DELIVERY

Hypothesis / aims of study

Anal incontinence (AI) is devastating condition in women after delivery. It was estimated that it affects 0,17% of women aged 15 to 64 and 1,3-11 % of women over 64 years of age (1). The causes of anal incontinence can be different. The main cause of anal incontinence is trauma due to delivery. The role of the episiotomy in prevention of anal incontinence is uncertain. A systematic review concluded that the effect of episiotomy on the development of pelvic floor disorders remains unknown (2).

The episiotomy is surgical enlargement of the vaginal orifice by an incision of the perineum during the last part of the second stage of labour. This procedure is done with scissors or scalpel and requires repair by suturing. There are different ways of performing episiotomy, in the midline, mediolateral, lateral left or right. Although episiotomy is one of the most commonly performed surgical procedures in the world, it was introduced without scientific evidence of its effectiveness. In our country episiotomy is performed by midwife to expedite delivery in the case of fetal distress, increase the area of passage, in breech position, instrumental delivery, or to minimize the risk of anal sphincter injury. It is almost always performed with scissors on the right side. There are few exceptions where they do it on the left side or midline. The incidence of episiotomy in primiparous women is around 50 % and 40% in all vaginal deliveries.

Anal sphincter injury is clinically diagnosed short after delivery and is an important factor of the subsequent development of anal incontinence. Many authors described endoanal ultrasound as suitable method to evaluate anal sphincter anatomy. Ultrasound examination of the perineum after childbirth improves diagnoses of anal sphincter tears, and enables their immediate repair that decreases the risk of severe fecal incontinence.

OASI is linked to midline episiotomies and mediolateral episiotomies with post-delivery angles of <30 and >60 degrees (3).

We wanted to know if there are some other factors other than the angle of the episiotomy that could influence anal sphincter injury.

Study design, materials and methods

The study was randomized controlled prospective. The recruited women were pregnant nulliparous women pregnant 28-33 weeks who came to routine check to our gynecological outpatient department.

The participants were examined twice: First in the 28--32 weeks of pregnancy and second 6-7 weeks after the delivery when the volunteers came back to the second examination. Imaging was performed using a crystal probe such as the B&K Medical scanner (B&K Medical, Sandhoften, Denmark). The probe was inserted into anal canal and the 3D scan was done. Data were analyzed using the Wilcoxon rank sum test for equal medians.

Results

Sixty-five women completed both examinations pre and post partum. Thirty-two women had mediolateral episiotomy on the right side. No differences were observed in global parameters such as age, weight, BMI or infant weight between patients with or without episiotomy.

Within the group of patients with episiotomy, a significant shorter episiotomy length was observed in patients with visible sphincter injury ($p < 0.05$), while no differences were observed in the angle of episiotomy.

Interpretation of results

The shorter episiotomy does not provide sufficient stray of forces away from anal sphincter. Probably we didn't find the differences of the anal sphincter injury in connection of the angle of episiotomy because all of the episiotomies were done in the range 40 to 50 degrees.

Concluding message

Short episiotomy is associated to the anal sphincter injury. In case we decide to perform the episiotomy it should be done long.

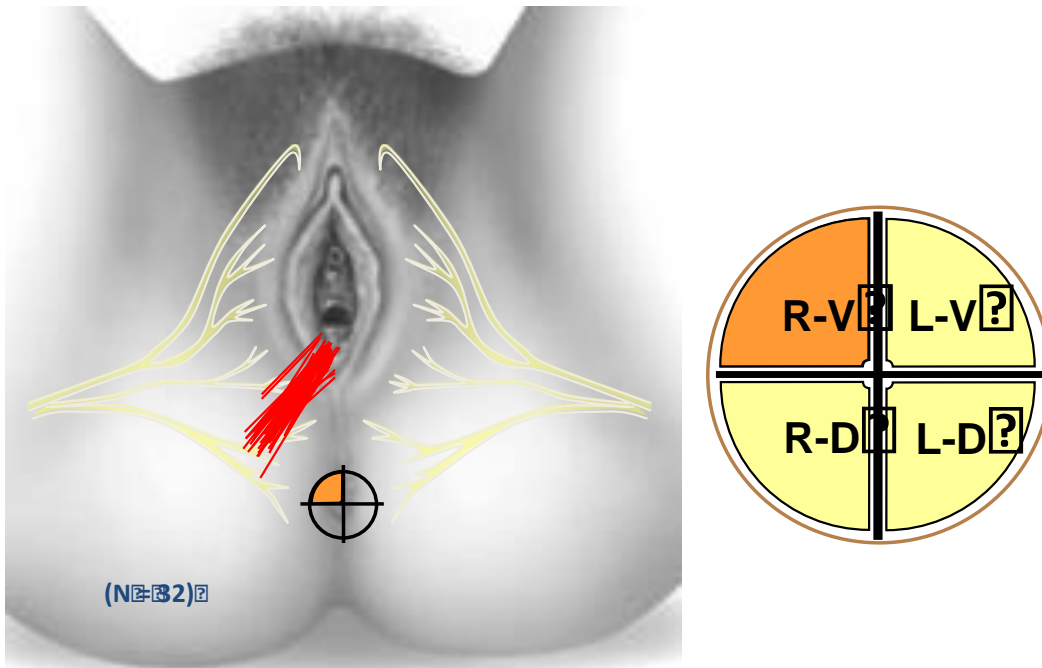


Figure 1. Locations of episiotomies

References

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Disclosures

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Ethics Committee: KOMISIJA REPUBLIKE SLOVENIJE ZA MEDICINSKO ETIKO NATIONAL MEDICAL ETHICS COMMITTEE- Slovenija **Helsinki:** Yes **Informed Consent:** Yes