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Case Report

OBSTETRIC INJURY OF THE RECTUM WITH INTACT ANAL SPHINCTER – TWO CASE REPORTS

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SUMMARY – Background: Injury of the rectum with intact anal sphincter is an extremely rare but very serious complication of vaginal delivery. It is also called a "buttonhole" tear.

Case: We present two cases of "buttonhole" tear/injury.

Results: In one case, the injury was recognized at the time of delivery and adequately treated. In the other case the injury was not diagnosed on time and the patient was treated for complications on the 6th postpartal day.

Conclusion: The consequences for the wellbeing of young mothers with perineal injury can be serious and affect social and sexual aspects of their lives. Adequate surgical treatment and postoperative care assure optimal results and prevent long term complications such as fistulas or fecal incontinence.

Key words: *fourth degree perineal laceration; "buttonhole" tear; perineal injury.*

Background

Injury of the rectum with intact anal sphincter is extremely rare but very serious complication of vaginal delivery. It is also called a "buttonhole" tear. It accounts for 4th degree of perineum rupture. It can significantly affect quality of social, professional and psychosexual life if not treated properly.[1] Currently, there is lack of evidence for the optimal surgical management of such cases.[2]

We present two cases. In one case the injury was recognized at the time of delivery and adequately treated. In the other case, the injury was not diagnosed on time and the patient was treated for complications 6 day after delivery.

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Case report I

Labor was induced at 37 weeks of pregnancy in 31-year-old patient with preeclampsia. She gave birth to a male newborn (weight-2900 g, length 46 cm) with normal Apgar score. The second stage of labor lasted for less than two hours. No episiotomy was performed. After delivery of the placenta, inspection revealed a rupture of the vagina, perineum and rectum 4 cm in length in the lower part of the vagina with an intact anal sphincter. The injury was surgically treated in general anesthesia. After the surgery, the patient was treated by broad spectrum antibiotics and parenteral nutrition up to the occurrence of peristalsis. The patient was discharged on the eight postpartal day.

Case report II

A 27-year-old pregnant woman was admitted to our clinic at 35 weeks of pregnancy due to burdened obstetric history and a history of hypertension over last five years. The first pregnancy ended early 5 years

ago as a stillbirth at the 24th week of gestation due to chorioamnionitis. The newborn had no malformations. During this hospitalization, antihypertensive therapy was administered and condition of patient and her child was monitored daily. Blood pressure was within normal limits. Ultrasound evaluation before delivery was 3300 g, which is about 50 percentile for gestational age. In the 40th week of pregnancy, with favorable obstetric findings, delivery was induced in controlled conditions by rupture of the membranes. The labor progressed without any stimulation, and the patient gave birth to a live female newborn, (weight 3050 g and length 48 cm), Apgar scores of 9 in the fifth and tenth minute. The second stage of labor lasted for less than an hour. Apart from an episiotomy incision 4 cm in length, no other injury was found in the perineum or vagina, and the anus and rectum were normal with no signs of injury. The patient was discharged on the third postpatral day. On the 6th postpartal day, she was admitted on suspicion of rectovaginal fistula. The patient noticed faces in the vagina. Inspection of the vagina revealed clear signs of a fistula, which was definitively confirmed by rectoscopy. Surgical procedure included removal of the episiotomy sutures that revealed a 6 cm long rupture of the rectum. Surgical procedure was performed that included reopening the episiotomy incision by removing the sutures. thus leading to the revelation of a 6 cm long rupture of the rectal wall. The rupture was closed by using a synthetic, braided, absorbable 2-0 vicryl suture. A protective colostoma was created. After the surgery, the patient was treated by broad spectrum antibiotics and parenteral nutrition up to the occurrence of peristalsis. The patient was discharged on the eighth postoperative day. Two months later, radiographic contrast examination was performed together with colostomy closure in order to establish gastrointestinal tract continuity.

Discussion

Risk factors for third- and fourth-degree perineal injuries are birthweight over 4000 grams, induced labor, prolonged second stage of labor, maternal age, shoulder dystocia, medial episiotomy, vacuum extraction, occipitoposterior position and time of delivery between 3 AM and 6 AM.[3-5]

Birth weight in both of our cases was less than 4000 grams, and there were no other risk factors based on the prenatal ultrasonographic examination.[5-8]

Nulliparas often have a third- or fourth-degree perineal injury.[5,6,9] In first case, the woman was primipara and in the second case the woman was in the second pregnancy.

In both cases, labor was induced in order to be performed in controlled conditions.[10]

The second stage of labor was not prolonged in our cases.

Both women were younger than 35 years. Literature data show that after that age there is increased risk for a third- or fourth-degree perineal injury.[5]

There were no shoulder dystocia, and medial episiotomies were not performed. In the second case, a protective lateral episiotomy was performed.[7,11] There are many reports that challenge any significance of episiotomy in preventing serious injuries of the perineum.[12] Both children were born in the occipitoanterior position, and both deliveries were finished during the daytime.

The main cause of the rectal "buttonhole" tear is overstretching of the pelvic floor musculature during the labor. The rectal wall is strongly attached to a pelvic floor musculature and is consequently under great deal of tension forces during the labor, which can cause "buttonhole" rupture. This is an extremely rare and unpredictable injury of the birth canal, and prevention is impossible. It is necessary to carefully examine the birth canal after delivery in order to recognize and correctly treat this injury.

Conclusion

Serious injuries of the birth canal are difficult to predict. It is important to follow obstetric guidelines and to perform episiotomy if indicated. An adequate inspection of the birth canal is necessary to detect third- and fourth-degree perineal injury and potential buttonhole tear injury. The consequences for the well-being of young mothers with perineal injury can be serious and affect social and sexual aspects of their lives.

Adequate surgical treatment and postoperative care assure optimal results and prevent long term complications such as fistulas or fecal incontinence.

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Sažetak

POROĐAJNA OZLJEDA REKTUMA S INTAKTNIM ANALNIM SFINKTEROM - DVA PRIKAZA SLUČAJA

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Pozadina: Ozljeda rektuma s intaktnim analnim sfinkterom je izrazito rijetka no vrlo ozbiljna komplikacija vaginalnog poroda. To se također naziva „buttonhole“ razdor.

Slučaj: Predstavljamo dva slučaja „buttonhole“ razdora.

Rezultati: U jednom je slučaju ozljeda primijećena pri porodu te prikladno zbrinuta. U drugom slučaju ozljeda nije diagnosticirana na vrijeme, pa je pacijent liječen zbog komplikacija 6. dan nakon poroda.

Zaključak: Posljedice za zdravlje u mladih majki s perianalnom ozljedom mogu biti ozbiljne i utjecati na društvene i seksualne aspekte njihovih života. Primjereno kirurško liječenje i postoperativna njega osiguravaju optimalne rezultate i sprječavaju dugoročne komplikacije kao što su fistule ili fekalna inkontinencija.

Ključne riječi: *ozljeda međice četvrtog stupnja, “buttonhole” ozljeda rektuma, ozljeda međice*