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UTEROVESICAL FISTULA AS A RESULT OF THE VAGINAL PESSARY PLACEMENT FOR PRETERM BIRTH PREVENTION

Hypothesis / aims of study

Uterovesical fistulas are rare condition in women and the least common among all urogenital fistulas. Most of them occur as a complication of repeated cesarean section. Other causes include: curettage, migration of an intrauterine contraceptive device, high forceps delivery, placenta percreta, manual removal of placenta, myomectomy, uterine rupture due to obstructed labor, brachytherapy for carcinoma of cervix and uterine artery embolization. However, the uterovesical fistula as a result of pessary use for prevention of preterm birth was unexpected and never published complication.

Study design, materials and methods

Thirty-two years old woman, gravida 3, para 3, with the history of 3 uncomplicated vaginal deliveries was admitted to the hospital due to severe urinary incontinence. She observed continuous vaginal urine leakage which had started immediately after vaginal delivery. During the early postpartum period leakage was particularly heavy but significantly decreased after puerperium. Patient also noted bloody coloration of the urine during menstruation (Joussef's syndrome). On the course of last pregnancy she was at high risk of preterm labor and was treated by placement of the silicone ring vaginal pessary at 28th week of gestation. At monthly check-up visits no vaginal infection, nor vaginal discharge beyond usually attributed to the presence of vaginal pessary was observed, the vaginal bacterial culture was also negative. Patient had used 100 mg progesterone vaginal tablets bid since the diagnosis of threatened preterm labor to the completed 37th week of pregnancy. Pessary was removed at 38th week of pregnancy and shortly after this procedure patient delivered vaginally healthy male newborn with the birth weight of 2800 g. Over the next 12 months patient was diagnosed for urinary incontinence. The office diagnostic hysteroscopy revealed uterovesical fistula when the endoscope was introduced through the cervix, the uterine cavity and fistula canal directly into the urinary bladder. She was referred to the Department of Gynecological Surgery where regular preoperative tests were done. Inspection of the vagina and uterine cervix with the speculum showed steady flow of the urine from external cervical canal os. There were no pathology of uterus and adnexa on transvaginal sonography. Cystoscopy visualized 1 cm in size supratrigonal fistula (approximately 1 cm from the trigone). The correction of uterovesical fistula by transabdominal approach was proposed and after detailed presentation of the procedure patient gave informed consent for treatment. Surgery was conducted by the team consisted of high volume gynecological and urological surgeons. First cystoscopy was performed and Tiemann catheter was introduced into the fistula canal. Then laparotomy was done and after localization of the catheter uterus was dissected from the bladder. Fistula was excised, uterus and bladder walls were closed separately. The continuity of the bladder wall was checked by the infusion of 200 ml of saline. Foley catheter was left for 10 days, antibiotic prophylaxis of urinary infection was given. Postoperative period was uneventful. Follow-up visits were scheduled at 1, 3, 6 and 12 months following surgery.

Results

One year following surgical repair of uterovesical fistula patient is continent and reports no symptoms related to lower urinary tract dysfunction.

Interpretation of results

Placement of the vaginal pessary for the prevention of the preterm labor could cause serious genitourinary complications. The exact mechanism of uterovesical fistula formation in the presented case is not known but could comprise of chronic ischemia caused by the pressure of ring pessary inserted into the vagina.

Concluding message

It is very important to verify every urogynecological symptom and complaint of the patient in early postpartum period. Stress urinary incontinence can be linked to the pelvic floor damage at the time of vaginal delivery but severe and persistent urine leakage should raise the suspicion of the genitourinary fistula.

Disclosures

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