Case Report / *Olgu Sunumu*

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Vesicouterine fistula after cesarean section: A case report

Sezaryen sonrası vezikouterin fistül olgusu: Olgu sunumu

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ABSTRACT

A vesicouterine fistula is an abnormal connection between the bladder and the uterus. It is a rare condition constituting 1-4% of urogenital fistulas. Its prevalence has increased in recent years due to the rising number of cesarean sections. Ultrasonography, cystoscopy, cystography, hysterosalpingography, computed tomography and magnetic resonance imaging methods are used in the diagnosis. Treatment options include conservative, medical and surgical methods. Surgical treatment is considered as the definitive solution. In this article, a case of uterovesical fistula after the third cesarean section was treated with surgical technique and presented with a review of the literature.

Keywords: Vesicouterine fistula, Cesarean, Incontinence, Complication

ÖZ

Vezikouterin fistül, mesane ve uterus arasındaki anormal bir bağlantıdır. Ürogenital fistüllerin %1-4'ünü oluşturan nadir bir durumdur. Son yıllarda artan sezaryen sayısı nedeniyle prevalansı artmıştır. Tanıda ultrasonografi, sistoskopi, sistografi, histerosalpingografi, bilgisayarlı tomografi ve manyetik rezonans görüntüleme yöntemleri kullanılmaktadır. Tedavi seçenekleri arasında konservatif, medikal ve cerrahi yöntemler yer almaktadır. Cerrahi tedavi kesin çözüm olarak kabul edilmektedir. Bu yazıda üçüncü sezaryen sonrası uterovezikal fistül gelişen bir olgu cerrahi teknikle tedavi edilmiş ve literatür gözden geçirilerek sunulmuştur.

Anahtar Sözcükler: Vezikouterine fistül, Sezaryen, İnkontinans, Komplikasyon

INTRODUCTION

Uterovesical fistulas are a group of rare diseases classified among genitourinary fistulas. These fistulas are mostly iatrogenic and commonly develop after obstetric and gynecologic interventions. A vesicouterine fistula is an abnormal connection between the posterior wall of the bladder and the anterior wall of the uterus. It accounts for 1-4% of all urogenital fistulas (1). In recent years, an increase in the prevalence of these fistulas has been observed worldwide with the increase in cesarean deliveries.

The most common cause of uterovesical fistulas is cesarean section operations. In addition, prolonged labor, use of forceps, vaginal delivery after cesarean section, uterine perforation, gynecologic injuries and genital tract infections may also play a role in fistula formation (2). Uterovesical fistulas developing after cesarean section and characterized with amenorrhea and cyclic hematuria without urinary incontinence are called Youssef syndrome (3). In this article, a case of uterovesical fistula which developed after the third cesarean section and was treated by open surgery is presented in the light of the literature.

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CASE REPORT 1

A 30-year-old patient, gravida 3, para 2, had a history of two previous cesarean sections. At 39 weeks of gestation, she presented to the emergency department with rupture of membranes. Due to a history of previous cesarean sections and prolonged rupture of membranes, the patient underwent an emergency cesarean section. Intraoperatively, it was observed that the bladder was adherent to the kerr line.Adhesions were opened with blunt and sharp dissections. The bladder was checked by instilling 350 cc of sterile methylene blue through a silicone catheter. No leakage was observed. The catheter was clear. The patient was discharged at 48th hour. On the 10th postoperative day, the patient presented to the outpatient clinic with a complaint of urine leakage from the vagina. Vesicouterine fistula was suspected on transvaginal ultrasonography (Figure-1A).

Cystoscopy was performed under general anesthesia.Cystoscopy revealed a 2cm vesicouterine fistula mouth in the dome of the bladder (Figure-1B).

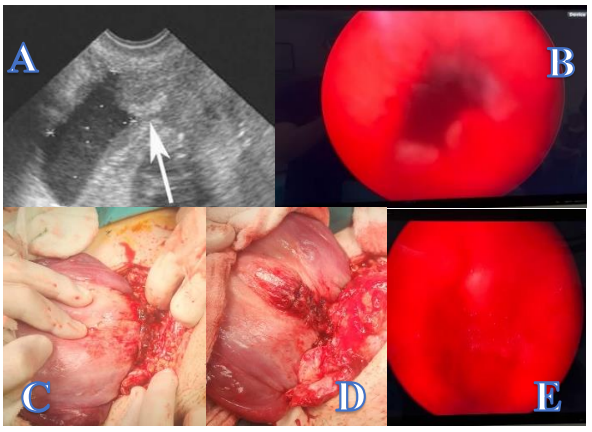
The vesicouterine fistula was passed through cystoscopy and the uterine cornu was visualized. The abdominal layers were opened through a Pfannenstiel incision after excising all sutures. Following the incision, the bladder was deperitonized. The fistula tract was then accessed at the kerr line anterior to the uterus (Figure-1C).

The fistula tract was accessed by adhesiolysis between the bladder dome and the anterior uterine wall. The fistula tract was excised including its connections in the bladder and uterus. The bladder wall was closed in two layers (Figure-1D).

Upon the patient's request, bilateral tubal ligation was performed simultaneously. Afterwards, cystoscopy was performed again (Figure-1E).

Postoperatively, bladder irrigation was performed with 50 cc of saline at 4-hour intervals for 48 hours. The catheter was kept in place for 15 days. At the end of this period, the catheter was clamped every 2 hours for 24 hours for bladder gymnastics. The catheter was withdrawn after the gymnastics was completed. The patient has no active complaints at the 2nd month postoperative follow-up.

Figure-1. Vesicouterine fistula images.



A: Vesicouterine fistula image on transvaginal ultrasonography. B: Image of a 2 cm vesicouterine fistula structure in the bladder dome. C: Image of fistula tract on the kerr line anterior to the uterus. D: Postoperative appearance of vesicouterin fistula repair. E: Closed view of the old fistula line in postoperative cystoscopy

DISCUSSION

Vesicouterine fistulas are rare genitourinary fistulas which are usually observed after obstetric procedures such as cesarean section operations. This condition, characterized by the absence of urinary incontinence and the presence of symptoms such as amenorrhea and cyclic hematuria, is also known as Youssef syndrome (3). In the literature, it has been reported that vesicouterine fistulas are mostly caused by bladder injury during cesarean section or iatrogenic damage in the kerr line region. In our case, it is thought that the fistula was formed due to adhesions between the bladder and uterus during the third cesarean section. In the diagnosis, cystoscopy is critical in determining the location and size of the fistula.

In our case, the diagnosis was made by transvaginal ultrasonography and cystoscopy and the fistula tract was evaluated in detail. Another recommendation is cystoscopic fulguration and laparoscopic approach instead of laparotomy (4). Surgical treatment is the most effective and definitive treatment for vesicouterine fistulas. Surgical intervention through transvesical, retroperitoneal, and transperitoneal approaches remains the preferred method for treating vesicouterine fistulae. The goal of the procedure is to close the bladder and uterine openings separately, with or without preserving the uterus.

(5) Using the Phannensteil incision and open surgical technique, the fistula between the bladder and uterus was successfully excised and the bladder wall was repaired in two layers. In addition, bilateral tubal ligation was performed simultaneously according to the patient's request. Porcaro et al. reported that emptying the bladder before obstetric surgeries and careful lower segment uterine dissections minimize the risk of uterovesical fistula formation (6). Bettez et al. reported that conservative treatment method can be applied if the diagnosis of uterovesical fistula is made immediately after delivery and successful results of early surgery in selected cases have been reported in the literature (7). Bonavina, et al. applied open surgery, laparoscopic or robotic methods in treatment, while conservative approaches may also be effective in small fistulas diagnosed early. In the study, it is emphasized that surgical techniques are generally successful, but complications can be prevented by reducing cesarean section rates and surgical attention. The author emphasizes the importance of preventing unnecessary cesarean sections and increasing the experience level of surgeons (8). Rao et al. emphasized that early diagnosis and appropriate surgical intervention increase recovery rates. Patient outcomes are generally satisfactory and complication rates are low (9). The study by Jóźwik et al. emphasizes that the most common cause of vesicouterine fistulas is cesarean complications and menuria (menstrual bleeding with urine) is a distinguishing symptom in the diagnosis. Surgical repair has been determined as the most effective method of treatment and has been shown to have high success rates. Early diagnosis and appropriate surgical intervention provide complete recovery of the patients' symptoms. Bladder catheterization in the postoperative period is frequently preferred to support recovery in patients who have undergone fistula repair (10).

In our patient, the 15-day catheterization period was completed smoothly, and no complications were observed during follow-up.

CONCLUSION

Although vesicouterine fistulas are rare, they are a complication that should be carefully evaluated in patients at risk after cesarean section. Early diagnosis and appropriate surgical intervention play an important role in restoring the patient's quality of life. In this case, a successful fistula repair was performed by open surgery and the patient was discharged completely asymptomatic. While the surgical technique provided an effective solution in the management of vesicouterine fistulas, it was once again emphasized that careful preoperative planning and surgical execution are the keys to success.

Conflict of interest: None of the authors have conflict of interest to declare.

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