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A rare complication of colporraphy anterior procedure: vesicovaginal fistula due to foreign body

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Summary

Iatrogenic vesicovaginal fistula (VVF) is one of the possible complications after gynecologic operations. However, fistula formation owing to a forgotten foreign body is a rare condition. Infectious complications and subsequent vesicovaginal perforation due to foreign body is difficult to diagnose since it is an unlikely condition. Delays in diagnosis and treatment can lead to serious morbidities and even mortality. This paper aims to discuss a VVF case developed after anterior colporraphy owing to forgotten gauze.

Key words: Iatrogenic vesicovaginal fistula; Anterior colporraphy.

Introduction

Vesicovaginal fistula (VVF) is an abnormal passage or aperture between genital system and urinary system. However, VVF is a rather rare condition in developed countries; it is more common in socio-economically underdeveloped and poor regions of the world such as Africa, Arabic peninsula, and Asia [1]. VVF frequently develops secondary to birth trauma, radiotherapy, genital cancers, and gynecologic surgery. There are numerous reports of VVF cases owing to foreign bodies. However, these reports usually cover insertion of foreign bodies into the vagina of victims of rape or result of sexual fantasies [2]. Fistula formation following vaginal surgical procedures is an extremely rare condition and to the best of the present authors' knowledge, there is no report regarding this. Hereby, they discuss a case of VVF in a patient owing to a forgotten surgical sponge who underwent a transvaginal operation.

Case Report

A 35-year-old female patient with previous seven healthy births and regular menstrual cycles was admitted to the present clinic with complaints of abdominal and pelvic pain that was occasionally accompanied by nausea, vomiting, dysuria, and polyuria. She had a history of cystocele repair seven months prior. She was on her period during the physical examination. Vaginal examination revealed a hyperemic eroded area approximately one-cm in diameter in the junction between cervix and vagina. Uterus was normal in the ultrasonic examination. However, a mass containing hyperechogenic areas, arising from left ovary that was protruding into the bladder trough its left wall was revealed. CT showed an irregular mass, with calcified areas and containing air bubbles that was extending posterior to the bladder (Figure 1). Due to poor conditions and lack of medical instruments, the present authors could not perform a cystoscopy. The patient was scheduled for surgery with possible diagnoses of pelvic abscess, tumor invading bladder or dermoid tumor. Operative examination revealed a myomatous uterus and a 2 x 3 cm cystic formation involving right tuba that had necrosis and/or granulose structures on cross-sectional examination. Advancing dissection soon revealed that the mass was proceeding to bladder from the posterior wall. Bladder was transected and an immediate foul smell was noticed. There was an approximately three- to four- cm long opening beginning right adjacent to orifice of left ureter and advancing posteriorly to the bladder wall. When the mass inside the opening was examined, its structure was textile and confirmed that it was a forgotten surgical sponge from the previous operation (Figure 2). The sponge was gently taken out

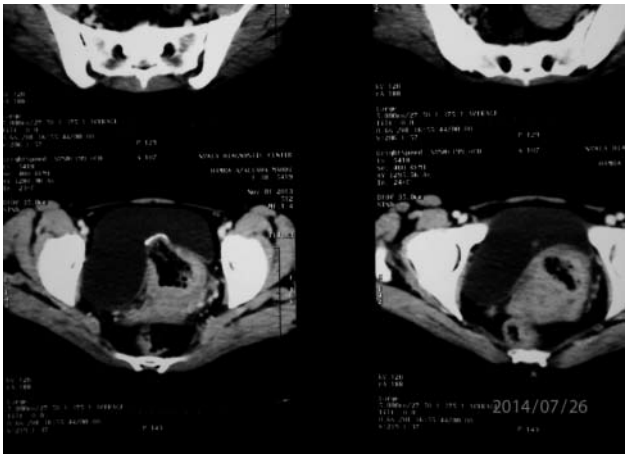

Figure 1. — MRI before operation.

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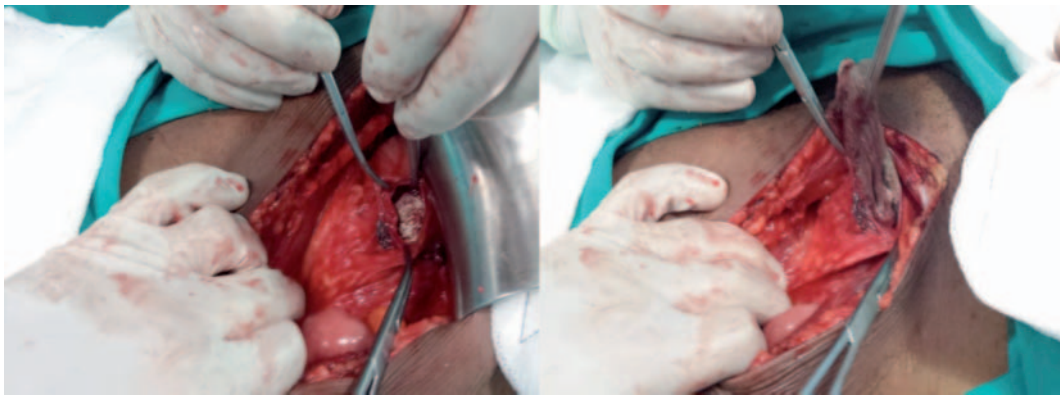

Figure 2. — Intraoperative view immediately after the transection of the bladder.

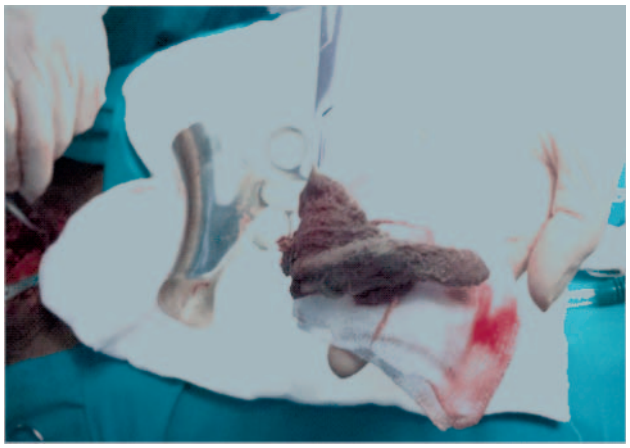

Figure 3. — Postoperative view of foreign body.

via forceps (Figure 3). Fistula tract was also checked with digital examination. When viewed from posterior wall of the bladder, the opening was reaching as far as cervico-vaginal junction and there were also erosions on the vaginal wall with partial necrotic areas. After debridement of granulation and necrotic tissues, fistula orifice was stitched with 2-0 polyglactin sutures inside the bladder and with 3-0 vicryl sutures from outside wall. Additional repair with 2-0 polyglactin sutures were used for primary repair of the vagina. Procedure was finished after placing 22 French triway Foley catheter in the bladder and a sump drain in the operation site.

Discussion

Unexpected complications can always occur during treatment of surgical diseases. Forgotten foreign bodies are one of those complications and often referred as gossypiboma, spongioma or textiloma [3, 4]. Gossypiboma is the general term used for abscess or granulomatous formations owing to forgotten surgical instruments such as sponges and other material in the abdominal cavity after the operations. Its incidence in abdominal and/or pelvic operations is approximately 1/1,000 to 1/1,500 [5]. This incidence even rises in emergent operations or among obese patients [6-8].

Gossypiboma can present as acute or chronic clinic settings. Abscess formation, sepsis or generalized peritonitis are among the most common acute settings. The present authors assume that the smelly vaginal discharge and pelvic pain of their patient can easily be attributed to these. However, chronic symptoms can be non-specific and can present as obstruction, adhesion, and fistula formation [9]. Risk of fistula formation rises with the time the foreign body remains in the body [10]. Migration of foreign body through the body is possible but an extremely rare condition [11]. When the history of a transvaginal operation was taken into account regarding the present patient, is strongly possible to assume that the sponge would have migrated from the operative field eroding its way to the bladder.

There are some reports of VVF cases following transvaginal operations for cystocele and incontinence due to operative trauma or erosion caused by used meshes [12, 13]. There are also some reports of VVF cases following colporraphy anterior operations [14]. However, causative factor for these cases were reported as thinning of the bladder wall due to extensive dissection and operative trauma. To the best of the present authors' knowledge, there is no reported case of VVF owing to a forgotten surgical sponge during anterior colporraphy.

Forgotten foreign bodies after surgical procedures are rather challenging and complicated conditions. They can easily be mistaken for an abscess, tumor or other serious conditions radiologically. Retained sponges may be seen on US as cystic masses with echogenic, wavy stripes in the center, and casting acoustic shadows[15]. Pelvic gossypiboma in CT presents as a heterogeneous hypodense mass with a central spongiform pattern containing air bubbles [16]. Owing to similar radiologic properties, the present authors' pre-diagnoses for their patient were abscess, tumor or due to present calcifications a dermoid cyst.

Gossypibomas generally require re-operation as soon as they are diagnosed as complications and morbidity are high [6]. The present case was immediately operated after initial diagnostic evaluations.

Conclusion

Being rare condition, forgotten foreign bodies and their acute and chronic complications should always be kept in mind due to serious mortality and morbidities caused by this condition.

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