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Case Report

Vesico-Vaginal Fistula Induced by a Missed Cap of Perfume Bottle: A Case Report and a Review of Literature

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Abstract

Vesico-vaginal fistula is either resulting from obstetric, gynecological surgeries, malignancy and rarely a foreign body. A Foreign body within the vaginal wall can result in major complications if left unmanaged for a long time. Our case is an iatrogenic Vesico-vaginal fistula induced by a cap of perfume bottle inserted forcefully in the vagina as a tool of sexual pleasure and was lost inside.

Keywords: Vesico-vaginal fistula; Vaginal purulent; Gynecological surgeries

Introduction

Vesico Vaginal Fistula (VVF) is an abnormal epithelialized or fibrous communication between the bladder and vagina. The mechanisms of VVF formation are often either related to necrosis of the posterior wall of the bladder and the anterior vaginal wall or direct injury creating communication between the vagina and bladder [1,2]. VVF impacts the well-being of a patient with continuous leakage of urine and resulting physical, emotional, social, and economic consequences [3]. Foreign bodies rarely result in VVF formation after being inserted, regardless of reason or situation, such as for sexual gratification, for contraceptive purposes, as neglected pessaries or, rarely, during rape or as punishment [4]. We have reviewed the literature and found 4 cases that were published for self- inflicted Vesico- vaginal fistulae.

A very unusual case of VVF in a young woman that developed due to insertion of an unknown vaginal herb for treatment of primary infertility was published by Paul et al. [5] Cystoscopy showed a single trigonal fistula measuring 3 cm × 2 cm just near the bladder neck. Vaginoscopy revealed cicatrized less capacious vagina and unhealthy vaginal mucosa. She was treated with transvaginal VVF repair using Martius flap interposition which leaked on 10th postoperative day. She underwent re-evaluation and another transvaginal fistula repair for small trigonal residual fistula after 3 months. She was doing well during the follow-up of 2 years. She attained sexual activity after 3 months of surgical repair but could not conceive.

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Another case of Vesico-vaginal and recto-vaginal fistula and death caused by a vaginal foreign body in a body-packer was published at Open Journal of Obstetrics and Gynecology in 2022 [6]. A 60-year-old woman with vaginal foreign body causing Vesico-vaginal and recto-vaginal fistula; she died after foreign body removal due to septic shock. The patient had vaginal purulent discharge, abdominal pain, and a septic shock. A fragment of stone (limestone) was present in the vagina, which was removed. The patient developed urinary incontinence and fecal incontinence after removal of the foreign body. The examination demonstrated the presence of Vesico-vaginal and recto-vaginal fistula. The patient died four days after removal of the foreign body due to septic shock and multi-visceral failure [6]. A successful case of conservative treatment of Vesico vaginal fistula by neglected hodge pessary insertion was published by group of authors in Inha University Research Grant [7]. An 88-year-old woman visited them with a complaint of total urinary leak, and was diagnosed as having Vesico vaginal fistula after pessary insertion. A part of pessary was seen in the bladder and it was removed by cutting pessary in the vagina. And then she was managed by antibiotics, local estrogen cream and Foley catheter indwelling. Vesico vaginal fistula was healed completely. This is the first successful case of conservative treatment of Vesico vaginal fistula caused by vaginal pessary without surgical repair [7].

The 4th case report published by department of obstetrics and gynecology in University of Gondar, was about an 18-year-old girl from rural northwest Ethiopia who presented with continuous leakage of urine for 2 months. She had inserted a plastic cap into her vagina 2 years prior for an unrevealed reason. A foreign body was found in her vagina, resulting in a large VVF. Removal of the foreign body was made under spinal anesthesia. She was catheterized for 14 days and the fistula closed spontaneously. After the removal of the cap, there was a 5 cm by 4 cm VVF seen from the vaginal side with indurated and fragile edges, and there was a scar band on the proximal one-third of the vagina which was divided. The fragile and scared edge of the fistula was removed and refreshed. The vaginal pack was left *in situ* to prevent adhesion and stenosis and removed after 48 hrs. An Eighteen FR size urinary catheter connected to urine bag was left *in situ* for two weeks with the intention of allowing tissue healing for later repair. She

was not restricted to assume any position. She had minimal urinary leakage in the first 48 hours after catheterization. Then after she was dry. Upon removal of the catheter after 14 days, the fistula was closed spontaneously, and the patient was discharged continent [8].

Case Presentation

A 35-year-old female patient presented for the first time with total urinary incontinence which started 6 months ago. She was maintained on medical treatment for hypertension and NIDDM. She had past surgical history of caesarian delivery twice, last been in 2011. Upon examination, she was morbidly obese (BMI: 50 kg/m^2). Local examination (PV) revealed a dimple at high anterior vaginal wall.

Abdominal US were normal with empty bladder. MRI revealed normal upper tract and well defined intra vaginal growth at the anterior vaginal wall (2.2 cm × 2.7 cm) likely old granulomatous infection with fistulous tract between high posterior bladder wall & anterior vaginal wall. Cystoscopy and colposcopy revealed a large foreign body lying within the vaginal wall and extending to the bladder. The foreign body was extracted which was a cap of perfume bottle. There was large fistula just above the trigone with trigonitis and the vagina was the seat of significant inflammatory reaction with significant distortion of mucosa & thickening (Figure 1).

She was managed with repair of Vesico vaginal fistula *via* vaginal incision around fistulous opening, closure of vaginal mucosa off bladder wall and closure of bladder mucosa (Figure 2).

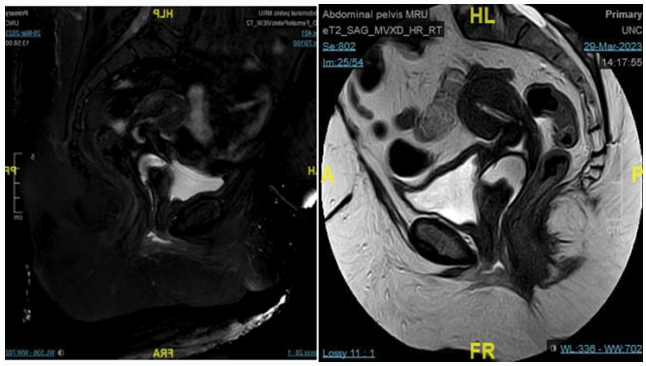

Figure 1: Fistulous tract between high posterior bladder wall & anterior vaginal wall.

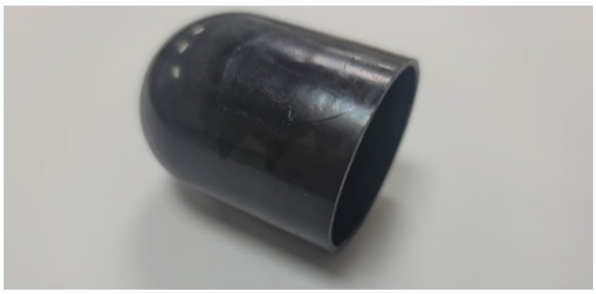

Figure 2: The extracted perfume bottle cap.

Post-operative course was un-eventful and the patient was discharged safely with urethral catheter which removed after 2 weeks at outpatient clinic. The patient was completely dry with normal voiding. Follow up ascending cystogram was done 3-months later and it was normal and no evidence of Vesico-vaginal fistula (Figure 3-6).

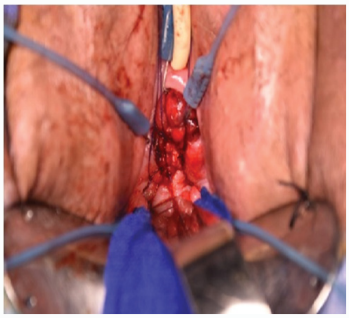

Figure 3: Transvaginal repair of vesicovaginal fistula.

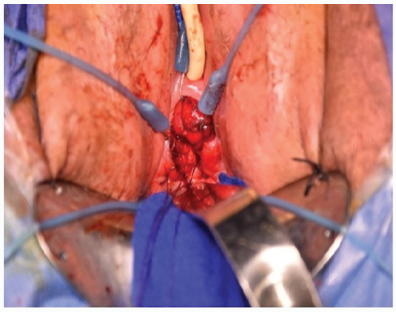

Figure 4: Transvaginal repair of vesicovaginal fistula.

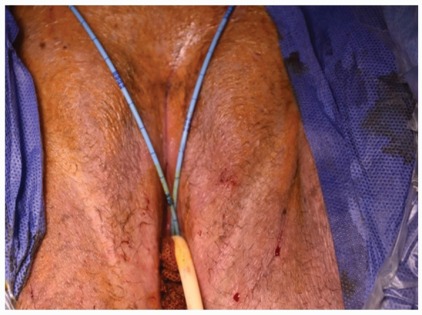

Figure 5: Bilateral ureteric catheters fixed intra operatively.

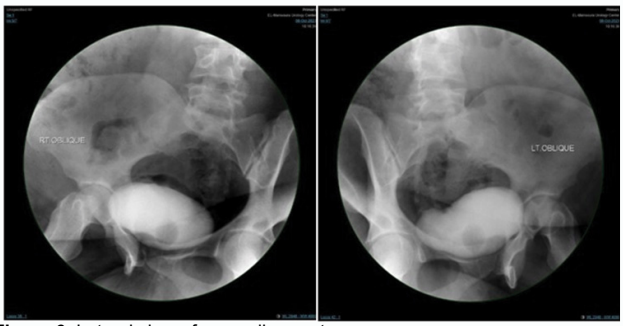

Figure 6: Lateral view of ascending cystogram.

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