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Case Report

Combined Vesicovaginal and Rectovaginal Fistulas Associated with a Vaginal Foreign Body

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ABSTRACT

Long-duration intravaginal foreign bodies are a rare entity, but may cause serious complications to the bladder or rectum. We describe a 22-year-old woman who presented with a calcified pelvic mass caused by a long-duration intravaginal foreign body complicated by perforation into the bladder and rectum. The vesicovaginal and rectovaginal fistulas were simultaneously repaired by suprapubic approach after retrieval of the foreign body during the same procedure.

Key Words: Vesicovaginal fistula, rectovaginal fistula, vagina, foreign body

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INTRODUCTION

The insertion of a vaginal foreign body is usually associated with masturbation, sexual intercourse, sexual abuse, contraception or psychiatric disturbance, and the literature contains numerous reports on the most unusual objects introduced into the vagina, including the cap of an aerosol or a plastic bottle[1,2].

An intravaginal foreign body, retained for a long time, can lead to serious complications, such as traumatic laceration, infection, stenosis, pelvic inflammatory disease, and fistulas.

This report presents the case of a woman who had an intravaginal foreign body for more than 2 years, which was complicated by a combined vesicovaginal and rectovaginal fistula.

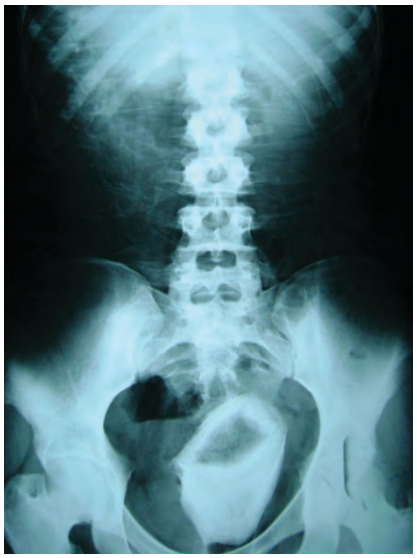

Fig.1: Plain X-ray of the urinary tract casting the shadow of the foreign body

CASE REPORT

A 22-year-old woman presented with symptoms of pelvic pain, persistent urinary

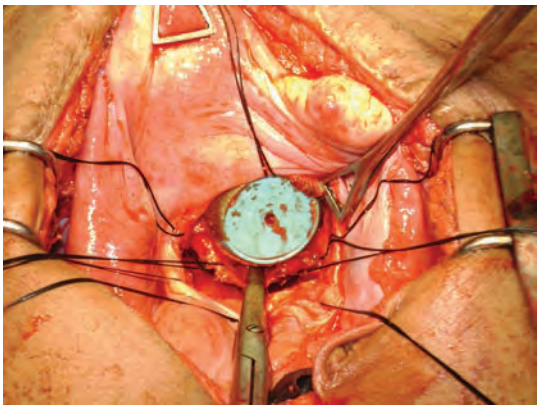

Fig. 2: Intra-operative suprapubic view showing the foreign body in the vesicovaginal fistula

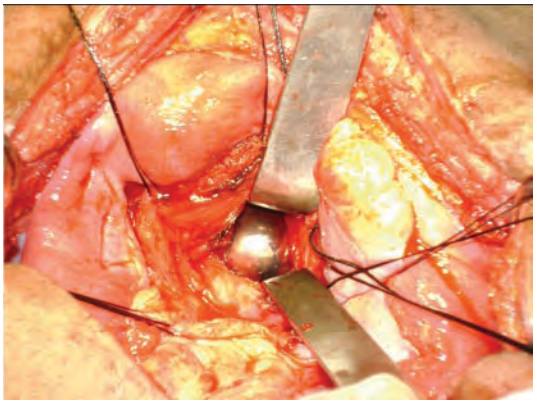

Fig. 3: Intraoperative view showing the mouth of the giant vesicovaginal fistula

leakage, dysuria and menstrual disorders, but no fecal incontinence or fecal soiling of the vagina. She denied the insertion of a vaginal foreign body at any time.

Clinical examination revealed hypogastric sensitivity. Rectal examination showed the presence of a large rectovaginal fistula and perception of a hard mass fixed to this fistula. Conventional radiography showed a calcification in the suprapubic area (Fig. 1). Ultrasonography showed a calcified pelvic mass, but its precise location was not clear. CT scan showed a central pelvic calcification measuring 8×6×6 cm in the pouch of Douglas with extravasation of contrast material from the bladder into the vagina and the rectum.

Cystoscopy under anesthesia revealed a vesicovaginal fistula above the trigone, 3 cm in diameter, and the presence of a hard, blue, calcified mass.

Pelvic examination under anesthesia showed the presence of the same calcified blue mass in the vagina. In the light of these findings, the patient was questioned again, and then confirmed the introduction of a plastic bottle cap through the vagina during masturbation 2 years previously. Surgical exploration through a suprapubic approach revealed a foreign body firmly fixed to the bladder and rectum wall. It was removed from the vagina, leaving behind a combined vesicovaginal and rectovaginal fistula (Figs. 2, 3). The rectovaginal fistula was repaired first by dissection and suturing of the two separate planes of the rectum and posterior vaginal wall, then the vesicovaginal fistula was repaired through the bladder. Post-operative catheter drainage was kept for 14 days, with parenteral nutrition for 7 days.

Post-operative follow-up at 6 months revealed absence of the vaginal and rectal fistula on physical examination and complete closure of the vesicovaginal fistula on cystoscopy. The patient was completely continent.

DISCUSSION

Vaginal foreign bodies are not uncommon but rarely lead to the formation of a fistula. Such complications are frequently associated with the insertion of aerosol caps into the vagina, but also other objects including small cups, metal boxes and plastic bottle caps have been reported[3,4].

Due to the association with sexual gratification, these patients are ashamed, so they rarely provide an accurate history of insertion of a foreign body, and most often the history is obtained after discovery of the fistula[2].

Fewer than ten case reports in the literature describe vesicovaginal fistula

Fig. 4: The plastic bottle cap covered by phosphatic encrustations after its extraction.

formation in relation to a vaginal foreign body[3]. Rectovaginal fistula is also a rare complication in such patients[2]. To our knowledge this is the first report of a combined vesicovaginal and rectovaginal fistula.

In our patient, the sharp rim of the bottle cap (Fig. 4) must have slowly cut through the posterior vaginal wall into the rectum, and into the bladder through the anterior vaginal wall, by a process of pressure necrosis[5].

Retrieval of the foreign body was achieved surgically, using a suprapubic approach although the fistula was low, because of the large size and the fixation of the foreign body to the vaginal wall and the rectum.

Optimum results for surgical closure of a vesicovaginal fistula are obtained when surgery is performed on an organized and mature fistula. Several authors recommend a waiting period of 3-6 months before performing surgery[6]. Others advocate an individualized approach, without delay[7]. Surgical judgment must determine the choice of the best time for repair, taking into account many factors, including infection, size of the fistula and quality of tissue.

For the rectovaginal fistula, our choice was also surgical repair, although conservative management is possible[2].

One-stage repair without colostomy for combined fistulas has been performed before with good results by Ojengbede et al.[8]. Not only does it relieve economic constraints and emotional challenges, but it also accelerates restoration to health and social re-integration for women affected with both vesicovaginal and rectovaginal fistulas.

In conclusion, although foreign bodies introduced into the vagina are not rare, bladder perforation as a consequence is very unusual, and the association with a rectovaginal fistula has not been reported so far. Usually the patient denies any knowledge about a vaginal foreign body and seeks medical help a very long time after the incident. The most appropriate method for the removal of foreign bodies depends on the size and mobility of the object in relation to the vagina. The best results for closure of the fistula are obtained when surgery is performed on a mature organized fistula.

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