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Vesico-Vaginal and Recto-Vaginal Fistula and Death Caused by a Vaginal Foreign Body in a Body-Packer

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Abstract

Foreign body retained for long duration sometimes causes vesico-vaginal and recto-vaginal fistula. We report 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. During the extraction foreign body, bacteria could be disseminated into the systemic circulation and might cause septic shock. Thus, wide-spectrum antibiotic therapy must be used before the procedure, which may decrease the chance of septic shock.

Keywords

Vaginal Foreign Body, Vaginal Discharge, Vesicovaginal Fistula, Rectovaginal Fistula

1. Introduction

Vesico-vaginal and recto-vaginal fistula in women of all age groups may be due to variety of causes. They are usually a complication of obstructed childbirth or pelvic surgery, most commonly hysterectomy [1] [2]. Intravaginal foreign body retained for long duration causes rarely urogenital and recto-vaginal fistula [2].

The introduction of foreign bodies through the vagina is a rare phenomenon in Niger. It remains a taboo. Many objects can be introduced into the vagina for therapeutic or sexual purposes, for behavioral problems, to conceal the object (drugs, weapons) as a body-packer, or rarely in accidental circumstances. "Body-packers" are persons who, voluntarily or through coercion, swallow, or insert drug filled packets into a body cavity, generally in an attempt to smuggle them across secure borders [3]. Nowadays in addition to drugs, several objects can be inserted into a body cavity. Sometimes patients are unable to remove them themselves and are very embarrassed to seek medical advice. Bleeding or purulent vaginal discharge are the most common symptoms. Foreign bodies sometimes cause a systemic infection in patients with a severe immune failure or a disruption of the vaginal wall with secondary infection [4]. We report the case of a 60-year-old patient, who had an incarceration of a huge object voluntarily introduced into the vagina in order to conceal this object. Surgical extraction was necessary because of a significant inflammatory reaction associated with perforation of the bladder and rectum.

2. Case Report

It was a 60-year-old patient, para 5, two living children and a history of menopause for 15 years. There was no history of postmenopausal or psychiatrics pathologies. She was a worker at an artisanal gold mine. She was referred from a district hospital for removal of a vaginal foreign body. She gave history of insertion of a fragment of stone per vagina one month earlier. The purpose of this insertion was to hide this stone supposed to contain gold (body-packer). She reported several self-extraction failures from the stone. She was admitted in February 2022 to the gynecological ward of the Maternity Issaka Gazobi in Niamey, Niger due to chronic inflammation of the urinary and genital tract, accompanied by abdominal complaints and malodorous vaginal discharge. General examination found a patient agitated, arterial pressure at 60/30 mmHg, T˚40˚. Pelvic examination was difficult due to the patient's pain and evidenced a hard obstructing vaginal mass with inability to visualize the cervix. Speculum examination revealed purulent discharge per vagina. We noted a friable vaginal wall which bled on touch. The biological assessment showed hyperleukocytosis, hepatic cytolysis and acute renal failure (**Table 1**). We have established a maternal resuscitation protocol: Hydro-electrolyte rebalancing 3 liters/day including; isotonic saline (500 cc/6 h for 48 h), 5% glucose solution (500 cc/12 h for 48 h). Antibiotic therapy initiated based on ceftriaxone 2 g/24 h IVDL, metronidazole 500 mg/8 h infusion. The patient was then taken to the theater for removal of the foreign body under general anesthesia (**Figure 1**). After fragmentation, a fragment of stone (limestone) measuring 20 cm circumference and 10 cm maximum dimension is extracted using straight Kocher forceps (**Figure 2**). We cleaned the vagina and washed the bladder with one liter of isotonic saline. The evolution was marked three days later by the occurrence of a vesico-vaginal fistula with

issue of urine and stool through the vaginal orifice. The patient developed septic shock with multiple organ failure one day later. The patient died on the fourth day after removal of the foreign body.

Informed consent: Written informed consent to publish this case and use anonymized image was obtained from the legal guardian of the patient after her death.

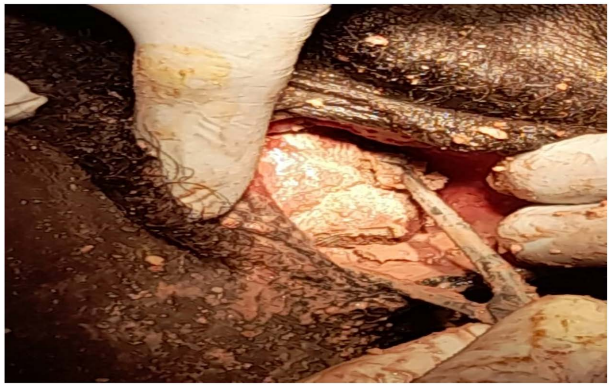

Figure 1. Extraction of the intravaginal foreign body using straight Kocher forceps.

Figure 2. Stone (limestone) 20 cm circumference after extraction.

Table 1. Biological parameters of the patient.

Laboratory tests	Results	
Hemogram	White blood cells:	$26.9 \times 10^3/mm^3$
	Hemoglobin:	10.3 g/dl
	Platelets:	$723 \times 10^3/mm^3$
ASAT	173 UI/l	
ALAT	67 UI/l	
Serum creatinine	281.6 umol/l	
Azotemia	1.88 g/l	
Glycaemia	1.55 g/l	

3. Discussion

This observation reports the clinical and biological illustrations of an intravaginal foreign body in a 60-year-old patient, a worker in an artisanal gold mine. The patient had used her vagina to conceal a stone fragment in order to later remove it from her vagina and extract the gold (as a body-packer). This allowed hers to cross secure border of the artisanal gold mine. Indeed, body-packers are persons who, voluntarily or through coercion, swallow, or insert drug-filled packets (most commonly heroin and cocaine) into a body cavity, generally in an attempt to smuggle them across secure borders [3] [5]. Nowadays several objects can be inserted into body cavity by a body-packer. In our patient it was the vagina and did not concern drugs but a fragment of stone.

The presence of an intravaginal foreign body can remain asymptomatic for a long time or be quickly revealed by clinical signs. The symptomatology depends on the duration but above all on the chemical nature and size of the intravaginal foreign body. The main reasons for consultation are bleeding or foul-smelling vaginal discharge. Vaginal foreign bodies might cause peritonitis, pelvic and vaginal adhesion and develop into fistulas in the bowels, bladder, uterus, and vagina [6]. Patients often present to the emergency department several hours or days after insertion of the foreign body. Our patient was seen to the emergency room after one month with a septic shock, abdominal pain and foul-smelling vaginal discharge. After maternal resuscitation we extracted the foreign body with difficulty under general anesthesia. However, the prolonged duration, size and both organic and chemical nature of the foreign body led to an intense inflammatory reaction with enormous tissue damage. The vesico-vaginal and recto-vaginal fistula had occurred three days after the extraction by fall of eschar. The occurrence of a urogenital or recto-vaginal fistula secondary to the incarceration of a foreign body is a rare situation [7]. Attempts at self-extraction lead to tissue damage leading to the occurrence of infectious complications and fistulas. Indeed, many patients are very embarrassed, will wait and try to remove them themselves rather than seek medical advice [8]. Ornellas and al [8] reported a case of vesico-vaginal fistula after removal of an aerosol plug introduced into the vagina for five years and leading to perforation of the bladder. In our observation, the intravaginal stay of the foreign body was only one month.

On the diagnostic level, the diagnosis was easy in our observation because the patient admits having voluntarily introduced the foreign body her vagina and had several times tried to extract it herself. In the case of neglected foreign bodies and where the patient denies any intravaginal introduction of an object, pelvic ultrasound or even MRI are the best techniques for the detection of intravaginal foreign bodies as well as for the evaluation of the impact on neighboring organs and the search for complications. In postmenopausal patients, they also rule out cervical cancer [9].

Therapeutically, the discovery of an intravaginal foreign body leads to its immediate extraction. Extraction difficulties may require surgery. In our case,

chronic inflammation, fibrosis and the size of the foreign body led us to extraction by morcellation in the operating room under general anesthesia with antibiotic coverage.

The evolution was marked four days later by the occurrence of multi-visceral failure leading to the death of the patient. The telluric nature of the foreign body in our observation makes us think of toxic shock syndrome or staphylococcal toxic shock [10] [11]. Indeed, it is a rare but serious complication caused by certain strains of *Staphylococcus aureus* secreting specific exotoxins. Its diagnosis, which is sometimes difficult, is above all clinical and is based on a range of arguments: frequent digestive disorders, a diffuse pain syndrome and circulatory failure with arterial hypotension [10] [11]. The evolution can quickly lead to an array of multi visceral failure [11]. Indeed, all these clinical signs were found in our patient. However, the absence of a vaginal sample culture allowing the identification of the germ constitutes a limit to our observation. Indeed, this biological examination is not available in our hospital and there was a lack of financial fund to send the sample to a private laboratory. Therefore, we carried out a probabilistic antibiotic therapy.

4. Conclusion

Intravaginal foreign body is an accident quite frequently encountered in women of all ages. Urogenital and rectovesical fistula as well as death as a consequence of a neglected vaginal foreign body is exceptional. The most suitable method for foreign body removal depends on the size and mobility of the object relative to the vagina. During the extraction foreign body, bacteria could be disseminated into the systemic circulation and might cause septic shock. Thus, wide-spectrum antibiotic therapy must be used before the procedure, which may decrease the chance of septic shock.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Meyer, L., Ascher-Walsh, C.J., Norman, R., Idrissa, A., Herbert, H., Kimso, O. and Wilkinson, J. (2007) Commonalities among Women Who Experienced Vesicovaginal Fistulae as a Result of Obstetric Trauma in Niger: Results from a Survey Given at the National Hospital Fistula Center, Niamey, Niger. *American Journal of Obstetrics & Gynecology*, **197**, 901-904. https://doi.org/10.1016/j.ajog.2007.03.071

[2] Puppo, A., Naselli, A. and Centurioni, M.G. (2009) Vesicovaginal Fistula Caused by a Vaginal Foreign Body in a 72-Year-Old Woman: Case Report and Literature Review. *International Urogynecology Journal*, **20**, 1387-1389. https://doi.org/10.1007/s00192-009-0877-y

[3] Arora, A., Jain, S., Srivastava, A., Mehta, M. and Pancholy, K. (2021) Body Packer Syndrome. *Journal of Emergencies, Trauma, and Shock*, **14**, 51-52. https://doi.org/10.4103/JETS.JETS_41_20

[4] Chinawa, J.M., Obu, H.A. and Uwaezuoke, S.N. (2013) Foreign Body in Vagina: An Uncommon Cause of Vaginitis in Children. *Annals of Medical and Health Science Research*, **3**, 102-104. https://doi.org/10.4103/2141-9248.109463

[5] Gueniat, O., Esseiva, P. and Margot, P. (2005) Le profilage de l'héroïne et de la cocaïne: Une méthodologie moderne de lutte contre le trafic illicite. Ed. Presses Polytechniques Romandes, Genève, 394 p.

[6] Panda, S., Das, A., Das, R., *et al.* (2022) An Unusual Case of Retained Foreign Body in the Vagina with Vaginal Fibrosis. *Cureus*, **14**, e20956. https://doi.org/10.7759/cureus.20956

[7] Goldstein, I., Wise, G.J. and Tancer, M.L. (1990) A Vesicovaginal Fistula and Intravesical Foreign Body: A Rare Case of the Neglected Pessary. *American Journal of Obstetrics and Gynecology*, **163**, 589-591. https://doi.org/10.1016/0002-9378(90)91204-P

[8] Ornellas, A.A., Waintrub, S., Carvalho, J., Koifman, N. and Bullos, S. (2006) Fistule vésico-vaginale après ablation d'un corps étranger intra-vaginal négligé. *Progrès en Urologie*, **16**, 502-504.

[9] Gobbur, V.R., Gobbur, R.H. and Patil, A.G. (2015) A Rare Case of Foreign Body Causing Recurrent Vaginal Didcharge in Perpubertal Child. *Journal of Clinical and Diagnostic Research*, **9**, 3-4. https://doi.org/10.7860/JCDR/2015/10227.5364

[10] Jarraud, S., Lina, G., Vandenesch, F. and Etienne, J. (2002) Epidémiologie des infections toxémiques à Staphylocoque doré. *Annales Françaises d'Anesthésie et de Réanimation*, **21**, 370-374. https://doi.org/10.1016/S0750-7658(02)00621-4

[11] Murray, R.J. (2005) *Staphylococcus aureus* Infective Endocarditis: Diagnosis and Management Guidelines. *Internal Medicine Journal*, **35**, S25-S44. https://doi.org/10.1111/j.1444-0903.2005.00978.x