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Case Report

Incidentally discovered vaginal foreign body: Forensic implication

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ABSTRACT

We report the case of a vaginal foreign body accidentally discovered during the examination of a 07-year-old girl victim of a road traffic accident. The unpredicted nature of this discovery has sufficiently raised the medico-legal interest. It was a question for us to determine the circumstances of this intromission by the interrogation of the parents, the study of the mechanism of injury of the accident on the public highway.

Physical examination revealed a hymenal tear without other recent vulvar lesions and a closed diaphyseal fracture of the left femur. The treatment consisted firstly of removing the metallic foreign body similar to a spring and secondly of fixing the bone lesion under general anesthesia in the operating room. Short- and medium-term post-operative follow-up was favourable.

Faced with the discovery of a vaginal foreign body, a methodical and rigorous analysis is essential.

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1. Introduction

Vaginal foreign bodies are a reality widely described in the medical literature. Their frequency is estimated at less than 5% in girls before puberty¹ with a peak between 3 and 9 years.² Of a very varied and sometimes unusual nature, these objects or substances can be found there either accidentally, deliberately or as a result of a trauma. The most frequently reported clinical symptomatology includes leucorrhoea or vaginal bleeding.³ However, a chance discovery circumstance is possible. We report the case of a vaginal foreign body accidentally discovered during the examination of a 07-year-old girl victim of a road traffic accident.

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2. Case

This is a 07-year-old girl, with no particular history, received in the company of her mother in the emergency room at the 4th hour of a public road accident (pedestrian knocked down by a medium-weight vehicle) for blunt trauma of the left thigh.

The clinical examination revealed at the primary assessment, a conscious patient, hemodynamically stable. On the secondary assessment, there was a characteristic deformation of the left lower limb in external rotation. The rest of the exam was unremarkable.

A standard X-ray of the pelvis in front and an X-ray of the left thigh taking the knee in front and in profile were performed. The mid-diaphyseal fracture of the left femur was evident; however, the image of a spiral radiopaque

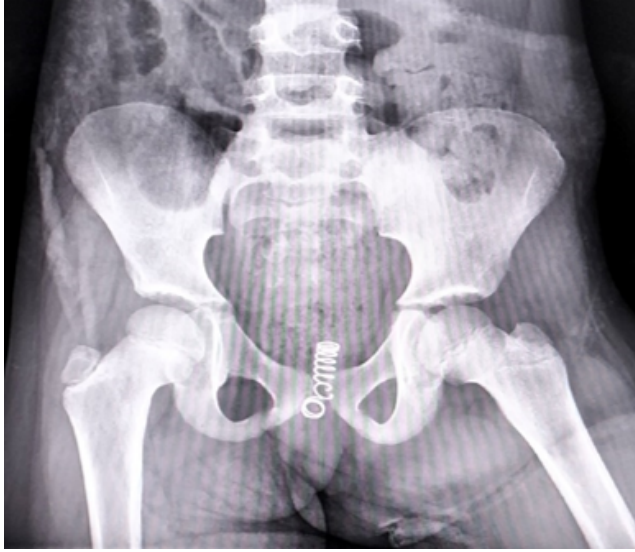


Fig. 1: Frontal pelvic x-ray

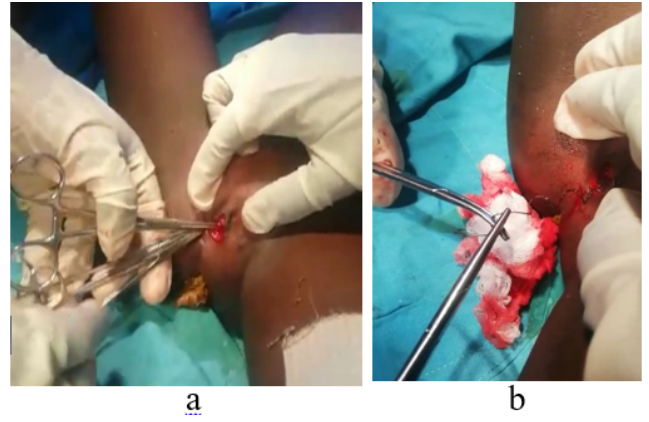


Fig. 3: a: & b: Foreign body removal



Fig. 2: Frontal hemi pelvic X- ray left hip and thigh

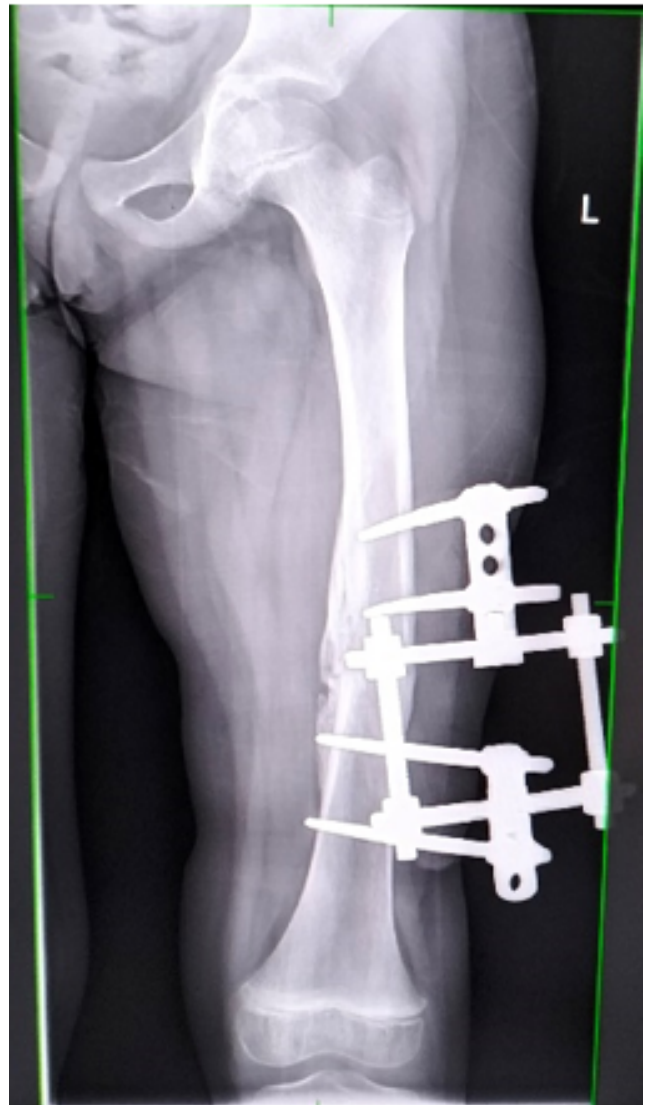


Fig. 4: Bone healing at D90 postoperatively



Fig. 5: Foreign body

object near the symphysis pubis caught our attention. (Figures 1 and 2). Thus, the gynecological examination carried out revealed a hymenal tear with slight vulvar excoriations.

The preoperative assessment carried out, the indications for ablation of foreign body and osteosynthesis of the left femur were posed and carried out in two operative stages. A spiral spring measuring 4 centimeters was extracted from the vagina. (Figure 3a and b). The local condition was unremarkable after ablation. The postoperative course was simple. The medium-term evolution was favourable. Bone union occurred on day 90 postoperatively (Figure 4).

3. Discussion

The insertion of foreign bodies into the vagina is not uncommon especially when it comes within the framework of menstruation, masturbation, sexual intercourse and aggression.^{4,5}

This takes on an unprecedented character when it is an unprecedented discovery during the examination of a seven-year-old girl who was the victim of a road traffic accident.

The nature of the objects often found is varied: safety pins, hair caps, pencils, small jars of jam and pieces of toilet paper, in particular among the mentally handicapped or young children.⁶ The batteries were also found.⁷

In children, this incident is most often related to a playful activity, and motivated by a spirit of curiosity.⁸ However, for reasons of drug trafficking, the vagina and many other orifices can also be used as a hiding place for illicit substances.⁹

The reason for consultation for vaginal foreign body finds for most authors leucorrhoea, bleeding, pelvic pain.^{7,10,11} The interrogation of the mother of our little girl did not reveal any particular complaints. The mechanism of injury at the origin of the trauma (pedestrian knocked down by a medium-weight vehicle) was unclear.

We thus ruled out the possibility of accidental introduction during the trauma. The degree of oxidation could be related to a prolonged stay in the vagina often responsible for complications such as severe infections or migration of the metallic body in the abdomen. On the other hand, Nakib et al. have described the case of a battery having stayed 6 years in the vagina of a prepubescent girl with severe tissue damage.³

The foreign body found in our case was a metal spring in the process of oxidation measuring 4cm (closed coils) and 12cm (extended coils) (Figure 5). In our case, the radiopaque nature of the foreign body allowed us to detect it easily. However, other organic foreign bodies such as plants, pieces or wooden toys can be found. Their detection is more difficult because they are not radiopaque. Examinations such as computed tomography or magnetic resonance imaging (MRI) can allow their detection and the evaluation of complications.

4. Conclusion

Vaginal foreign body is a relatively frequent entity. The circumstances of introduction are varied, sometimes exceptional and dependent on age. In the case of the little girl, the questioning of the parent is necessary. Functional signs are not always in the foreground. On the other hand, imaging was of great help for the fortuitous detection of the radiopaque body.

5. Source of Funding

None.

6. Conflict of Interest

None

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