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CASE REPORT

Live fetus inside the urinary bladder: a case report

Feto vivo dentro da bexiga urinária: relato de caso

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ABSTRACT

Vesicouterine fistula is a rare condition. Its incidence, however, has been increasing due to the higher incidence of cesarean sections. The presence of a live fetus inside the bladder who passed through a vesicouterine fistula is an extremely rare situation. We report a case of woman who underwent two previous cesarean sections, was referred to a hospital due to mild pelvic pain and genital bleeding. At the moment, physical examination was normal. Ultrasound scan revealed a gestational sac inserted into the anterior wall of the uterus, with a living fetus of approximately 13 weeks, with active body movement and normal heart rate inside it. The fetal abdomen, around the waist, was stuck at the opening of a vesicouterine fistula, so that the fetal head and trunk were entirely into the bladder cavity, while lower limbs remained at the uterine cavity. Laparotomy was performed, the fistulous tract was excised, the fetus (without heart beating) was removed on opening the bladder, and the uterine cavity was emptied. The defects in the bladder and uterus were repaired. The postoperative period was uneventful. A live fetus inside the urinary bladder is a rare condition the continuation of pregnancy is unlikely and the vesicouterine correction can be made by the time of surgical intervention.

Keywords: Abortion; Fetus; Obstetrics; Pregnancy; Pregnancy complications; Urinary fistula

RESUMO

A fístula vesicouterina é uma condição rara. Sua incidência, no entanto, vem aumentando, devido à maior incidência de cesáreas. A presença de feto vivo dentro da bexiga por meio de uma fístula vesicouterina constutui situação extremamente rara. Relatamos o caso de uma mulher com duas cesarianas anteriores encaminhada para o hospital devido à dor pélvica leve e sangramento genital. Na hospitalização, o exame físico estava normal. A ultrassonografia revelou saco gestacional inserido na parede anterior do útero com feto vivo de aproximadamente 13 semanas, com movimento corporal ativo e frequência cardíaca normal. O abdômen fetal, ao redor da cintura, estava preso na abertura de uma fístula vesicouterina de modo que a cabeça e o tronco fetais estavam totalmente dentro da cavidade da bexiga, enquanto os membros inferiores permaneciam na cavidade uterina. A laparotomia foi realizada, o trajeto fistuloso foi excisado, o feto (que estava sem batimento cardíaco) foi removido ao abrir a bexiga, sendo a cavidade uterina esvaziada. Além disso, foram reparados os defeitos na bexiga e no útero. O pós-operatório transcorreu sem intercorrências. Feto vivo dentro da bexiga é uma condição rara, e a continuidade da gravidez é improvável, sendo que a correção vesicouterina pode ser feita no momento da intervenção cirúrgica.

Descritores: Aborto; Feto; Obstetrícia; Gravidez; Complicações na gravidez; Fístula urinária

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INTRODUCTION

Vesicouterine fistula (VUF) is a rare condition, accounting for only 1 to 4% of all urogenital fistulas. Its incidence, however, has been increasing due to the higher incidence of cesarean sections.[1] Approximately 90% of VUF cases are associated with Youssef's syndrome. In addition, amenorrhea and cyclic hematuria (menuria) are observed in patients who previously underwent cesarean sections. Signs and symptoms may occur soon after delivery, or they can take years to develop, and are often associated with worsening of life quality and psychological distress.[2] Besides this syndrome, endometriosis, obstructed labor, tuberculosis, and malignancy are other etiologies. Diagnosis is made by cystoscopy, hysterography, or excretory urography; however, in some cases, transvaginal ultrasound, magnetic resonance imaging (MRI) or helical computerized tomography scan have a major role.[3]

CASE REPORT

A 37-year-old G3P2 woman, with two previous cesarean section deliveries, was referred to a tertiary-level hospital because of mild pelvic pain and moderate genital bleeding for the past few days. Her last menstrual period was uncertain. Upon admission, she reported that she had been experiencing menuria since the last cesarean section, which was carried out 6 years ago. During hospitalization, she was clinically stable and her physical examination was normal.

Soon after admission, a pelvic and transvaginal ultrasonography was performed. The exam revealed a gestational sac inserted into the anterior wall of the uterus, with a living fetus inside it of approximately 13 weeks, with active body movement and normal heart rate. Gestational sac was not completely within the body cavity of the uterus, however, it had herniated into the bladder through an opening of approximately 17mm instead. The fetal abdomen, around the waist, was stuck at the opening of the fistula, so that the fetal head, trunk and upper limbs were entirely into the bladder cavity, while lower limbs remained inside the uterine cavity. A MRI was performed for better anatomical evaluation and therapeutic programming (Figures 1 A and B). The patient progressed with increasing pain and genital bleeding. Another ultrasound scan, performed some hours after the first exam, diagnosed fetal death, and showed the entire migration of fetus to the bladder. We proposed a laparotomy for fetal removal, an open uterine curettage, and correction of the fistula.

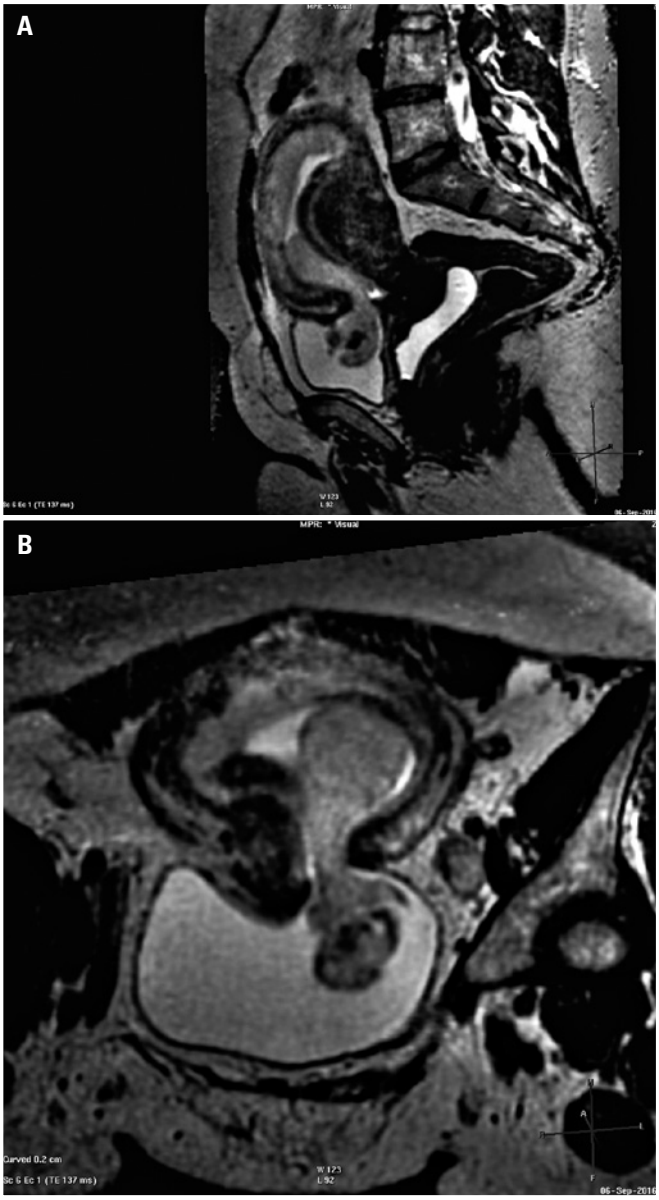

Figure 1. A and B. Magnetic resonance imaging showing fetus partially within the maternal bladder

Laparotomy was performed and the intraoperative findings revealed the presence of a fistulous tract between the bladder and the lower uterine segment, which allowed the fetus to move into the bladder (Figure 2). After opening the bladder the fetus was removed, and the uterine cavity was emptied and the fistulous tract was excised. The defects in the bladder and uterus were repaired. The postoperative period was uneventful, and she was discharged after 2 days with a bladder catheter (for more 12 days).

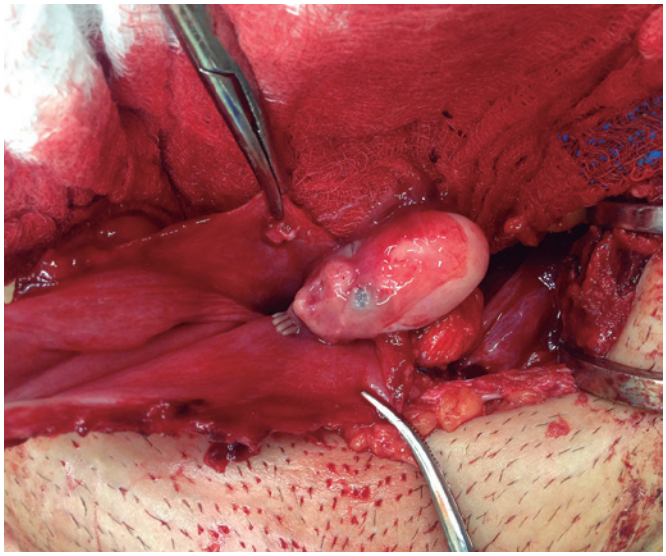

Figure 2. Fetal cephalic pole, fetal trunk inside the bladder (which was opened)

DISCUSSION

The reported case describes an ectopic pregnancy with development of part of gestational sac and fetus who moved to inside the bladder. This appears to be the second case reported in the medical literature. Although there are some reports of umbilical cord prolapse through the urethra due to VUF, laparotomy findings of a fetus inside the bladder due to spontaneous rupture of the uterus after an attempt of labor induction or unsuccessful curettage,[4] only Sapre et al., attained to describe a case in which a dead fetus was found inside the urinary bladder after migration through a VUF.[5]

Exactly as in our case, these authors described a patient who had undergone two previous cesarean sections before the event. She presented a history of amenorrhea of approximately 10 weeks' duration, lower abdominal pain, and 5 days of hematuria. The patient complained of cyclical hematuria with reduced menstrual flow since the last cesarean sections had been performed.

Our patient presented a history of bladder injury in the last cesarean sections. This fact shed a light on the pathophysiology of the case. Although she remained with a urinary bladder catheter for a long time after the event, she had highly suggestive symptoms of VUF, *i.e.*, absent vaginal bleeding during menstrual period, but the presence of blood in the urine (menuria) instead. Despite having investigated the condition prior to her pregnancy, even with a cystoscopy examination, the fistula was not identified nor corrected. The gestation, which lead to the distention of the uterine cavity, allowed the identification of the lesion and, more importantly, its treatment.

Because of the rarity of this medical situation, the course of treatment was uncertain at first. As possibilities, hysterectomy or correction of the defect of the anterior wall of the uterus were considered. Considering that the fetus was alive at the first ultrasound examination, we thought about the possibility of trying to relocate the fetus into the uterine cavity. However, since spontaneous fetal death occurred, this approach was discarded and the treatment that was offered to the patient based on her desire of conceiving again.

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