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Case Report

Spontaneous uterine rupture on uterus bicornis: a case report

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ABSTRACT

Uterine malformations are the most common congenital anomalies of the female reproductive system with an incidence of approximately 4%. The absence of incomplete fusion of the two Mullerian ducts leads to a bicornuate uterus. In the majority of cases, its discovery is incidental on imaging. However, an obstetric complication can be the revealing element. We report a case of spontaneous uterine rupture in a bicornis unicervical uterus at five months of pregnancy. It was a 19-year-old primigravida without prenatal follow-up. The treatment consisted of performing a hemi-hysterectomy.

Keywords: Bicornis unicervical uterus, Uterine rupture, Hemi-hysterectomy

INTRODUCTION

Uterine malformations are the most common congenital anomalies of the female reproductive system. In the general population of women, they occur with an incidence rate of approximately 4%.[1] The bicornuate uterus results from the incomplete fusion of the two Müllerian ducts.[2] Its discovery is fortuitous in the majority of cases.[3,4] However, infertility or an obstetric complication may be the revealing element.[2] We report a case of spontaneous uterine rupture on a bicornuate uterus at five months of pregnancy.

CASE REPORT

This is Miss DK, aged 19, primigravida with no significant pathological history. Admitted to the gynecology emergency department for management of acute abdominopelvic pain that appeared 9 hours before her admission without metrorrhagia with the notion of a 5-month delay in menstruation. On admission, the patient was conscious, afebrile, with pale conjunctivae, with a blood pressure that had collapsed to 09/5 cmHg and a heart rate of 112 beats per minute. The abdomen was distended and very sensitive as a whole, making palpation difficult. When the speculum was placed, the cervix was purplish, apparently healthy without metrorrhagia. On vaginal examination, a modified cervix was noted, admitting only the pulp of the finger and pain in the cul-de-sac of Douglas. The trans parietal abdominal puncture brought back five milliliters of incoagulable blood. The qualitative urinary β HCG test was positive. Given this picture of hemoperitoneum with hypovolemic shock in a 5-month pregnancy that was not being monitored, we suspected a ruptured ectopic pregnancy (ectopic pregnancy). An emergency laparotomy was indicated. The preoperative assessment revealed anemia at 4.9 gm/dl and the rest of the assessment was normal. Exploratory laparotomy revealed a large hemoperitoneum of 1800 ml, with a dead fetus weighing 450 g and a placenta in the peritoneal cavity. The uterus was bicornuate with a rupture at the fundus of the right hemiuterus (Figure 1 and 2). We performed a right hemi-hysterectomy with preservation of the right ovary (Figure 3). The patient was discharged on the sixth day after correction of the decompensated anemia by a

polytransfusion of erythrocyte concentrates. The anatomopathological examination of the surgical specimen did not support a malignant pathology that could weaken the uterine horn. We recommended the use of contraceptives for at least 12 months to ensure sufficient healing. For future pregnancies, we advised prenatal monitoring by a gynecologist and a cesarean section at term.

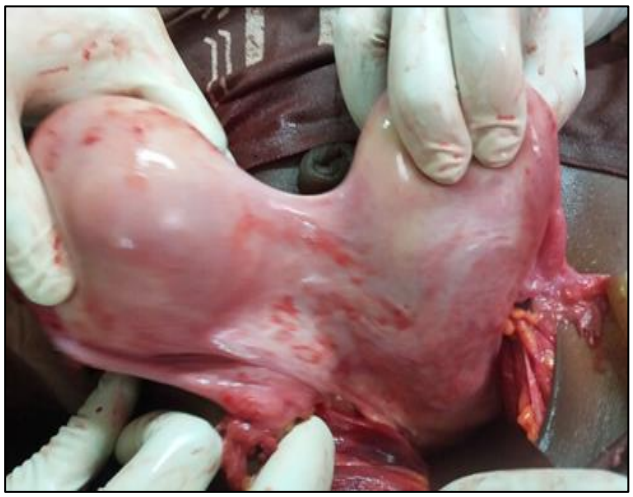

Figure 1: Unicervical bicornuate uterus.

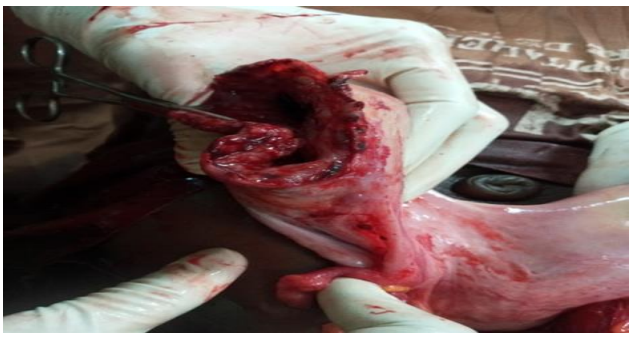

Figure 2: Rupture of the fundus of the right horn.

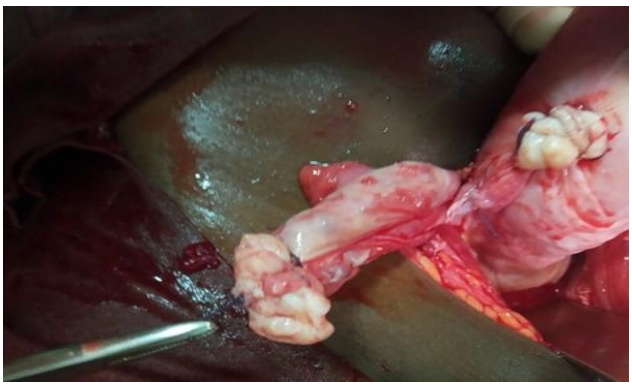

Figure 3: Right hemi-hysterectomy with preservation of the right ovary.

DISCUSSION

Congenital uterine malformations in the female population are underestimated at 3-4% since many of these malformations are asymptomatic. They are very often diagnosed fortuitously during cesarean sections.[5,6] Septate uterus is the most common uterine malformation, accounting for 30 to 50% of cases, followed by uterine malformations such as bicornuate uterus and unicornuate uterus.[7] In our case, it was a discovery made by laparotomy indicated in the presence of hemoperitoneum in an unmonitored pregnancy estimated at five months. In patients monitored for infertility, the diagnosis of uterine malformation is made by imaging techniques such as 3D ultrasound, 3D hysterosonography and MRI.[7] Some of these imaging techniques are of limited access and expensive in our country. If uterine rupture in the case of a normal uterus generally occurs at the end of pregnancy or during labor in women with risk factors, this is not the case for a bicornuate uterus where rupture is common in the first or second trimester of pregnancy.[8,9] However, uterine rupture in malformed uteri remains a rare complication and the available literature only includes a few reported cases.[8,9] This is the first case described in our department. This is an emergency whose management should not be delayed. Treatment is primarily based on the management of hypovolemia and coagulopathy if they are already established. Exploratory laparotomy revealed that the rupture was located at the bottom of the hemi-uterus. We performed right hemi-hysterectomy with preservation of the right ovary to minimize recurrence as reported by some authors.[8,9] The patient was hospitalized for six days while blood loss was compensated by a transfusion of packed red blood cells. We recommend elective cesarean section in subsequent pregnancies to prevent uterine rupture during labor as recommended by some authors.[8]

CONCLUSION

Uterine rupture on bicornuate uterus is very rare, however it can be a cause of maternal morbidity and mortality. It is therefore necessary to raise awareness among pregnant women for a correct medical follow-up of pregnancies in order to diagnose and manage pregnancy complications early. Conflicts of interest the authors declare no conflicts of interest.

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