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CASE REPORT

Ruptured Ectopic Pregnancy in Accessory Horn

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ABSTRACT

Pregnancy in an accessory horn is rare. The incidence of uterine congenital anomalies: Müllerian defects in the normal fertile population are 3.2%. Incidence in pregnancy is 1 in 76,000 to 150,000 pregnancies. There are chances of high rate of spontaneous abortion, preterm labor, intrauterine growth retardation, intraperitoneal hemorrhage, and uterine rupture. Unicornuate uterus is a type II classification with unilateral hypoplasia or agenesis. It can be further classified into communicating, noncommunicating, without cavity, and unicornuate uterus.

Mother and fetus are at grave risk due to rupture of horn in second trimester of pregnancy. We report a case of ruptured accessory horn pregnancy at gestation of 18 weeks. Emergency laparotomy was done and the accessory horn was excised. Patient's postoperative recovery was uneventful.

Keywords: Accessory horn, Müllerian duct, Rupture.

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INTRODUCTION

The unicornuate uterus is caused by the nondevelopment of one müllerian duct. It is associated with various degrees of rudimentary horn connected to the unicornuate uterus when one of the ducts develops only partially. The American Society for Reproductive Medicine has divided this anomaly into four subgroups:[1] (1) Unicornuate uterus with communicating rudimentary horn, (2) with noncommunicating rudimentary horn with cavity, (3) without cavity, and (4) an isolated unicornuate uterus.

Unicornuate uteri with rudimentary horn are susceptible to many complications. The common complaints in women with unicornuate uterus include—endometriosis, primary infertility, hematometra, and urinary tract anomalies.[2-6] Women with unicornuate uterus have been associated with impaired reproductive outcome.[6,7] It may be similar when compared with the performance of women with a didelphic uterus.[9] Rupture of a pregnant rudimentary horn is a well-known severe implication of this anomaly.[2,9]

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CASE REPORT

A 20-year-old G2P1L1 with 18 weeks of amenorrhea with previous lower segment cesarean section (LSCS) referred with complaints of acute abdominal pain and vomiting. On examination, patient was hemodynamically unstable, with a grade III pallor, pulse rate was 120/minute, blood pressure was 60/50 mm Hg. On examination, abdomen was distended. Uterine contour and fetal parts were not made out. Pervaginal examination, the os was closed and uneffaced. Uterine size could not be made out.

Blood investigations revealed hemoglobin (Hb) of 6 gm%, and human immunodeficiency virus, HbsAg, venereal disease research laboratory test were negative. Liver, renal function tests, and serum electrolytes were within normal limits. Prothrombin time and activated partial thromboplastin time were normal. Previous scans have not picked up any uterine abnormality.

Emergency ultrasonography of abdomen revealed uterus of normal size, empty endometrial cavity, and a large gestational sac with a fetus corresponding to 18 weeks of pregnancy was found in right pelvic region. There were no fetal movements and cardiac activity was absent. There was a moderate fluid collection in Morison's pouch and pelvic cavity. Loops of bowel were floating in abdominal cavity.

Patient was diagnosed to have hemoperitoneum with probable ruptured ectopic pregnancy and patient was resuscitated with IV fluids, blood, and blood products.

Patient underwent emergency laparotomy. On laparotomy, there was large gestational sac (Fig. 1), moderate hemoperitoneum (Fig. 2), with a floating fetus in the peritoneum (Fig. 3), rupture of accessory horn which was excised (Fig. 4), and intact previous LSCS scarred uterus. The accessory horn was excised (Fig. 4) and blood and blood products were transfused. Nonetheless, most cases remain undiagnosed until it ruptures and presents as an emergency. Patient's postoperative recovery was uneventful.

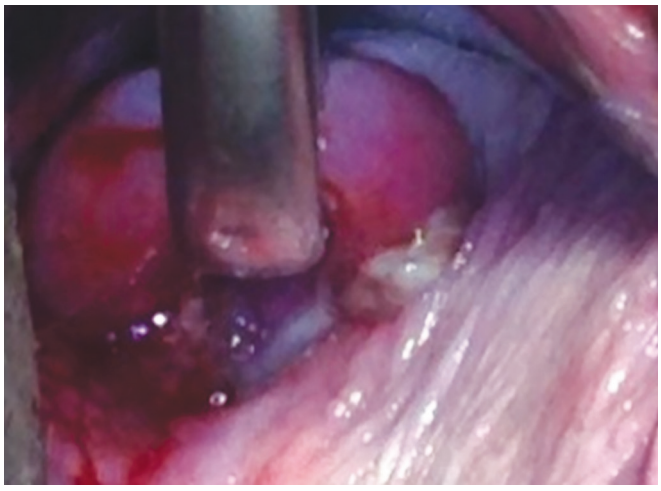

Fig. 1: Accessory horn with fetus

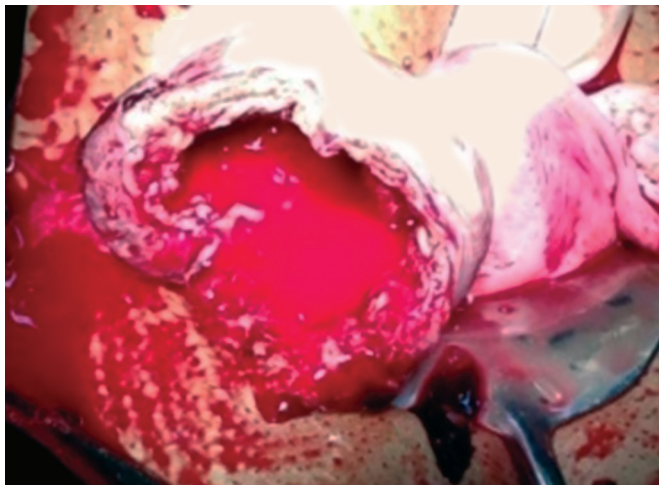

Fig. 2: Hemoperitonium

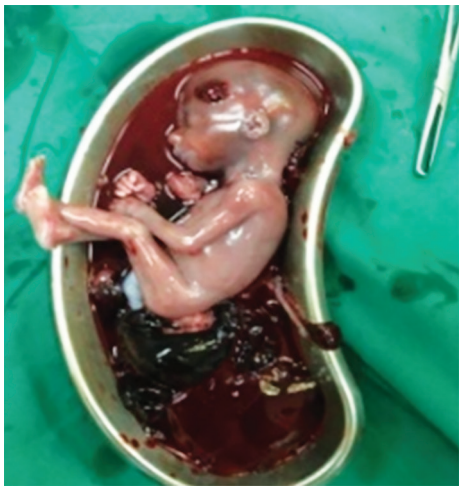

Fig. 3: Floating nonviable fetus

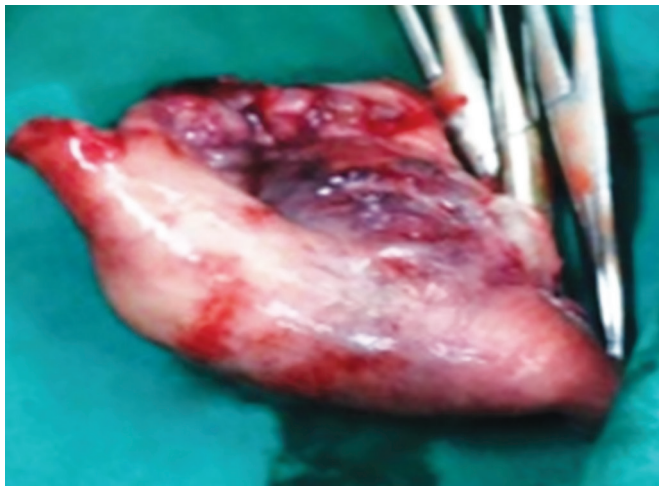

Fig. 4: Excised accessory horn

DISCUSSION

In 83% of cases, the rudimentary horn is noncommunicating. Around 70 to 90% rupture before 20 weeks and can be catastrophic.[12]

Pregnancy in a noncommunicating rudimentary horn occurs through transperitoneal migration of sperm or fertilized ovum. As the uterine wall is thicker and more vascular, bleeding is more severe in rudimentary horn pregnancy rupture.[12] It is usually difficult to diagnosis prior to rupture, but could be made out when ultrasonography and magnetic resonance imaging facilities are available.

Tsafrir et al outlined a set of criteria for diagnosing pregnancy in the rudimentary horn.[15]

They are:

- Asymmetrical bicornuate uterus with pseudopattern
- Tissue surrounding the gestation sac and the uterine cervix will be absent, and
- Presence of myometrial tissue surrounding the gestation sac. Pregnancy in the rudimentary horn or in the tube on this side is possible when migration of a sperm takes place through the abdominal cavity. Pregnancy in the rudimentary horn is a well-known uterine anomaly. Rupture of the pregnant rudimentary horn occurs between 10 and 15 gestational weeks.[2,10] Patients may bleed heavily and it may threaten the patient's life. When pregnancy in the rudimentary horn is diagnosed, the excision of that pregnant horn is mandatory. There are sporadic case reports of producing a living infant. In 1699, Mauriceau and Vassal[11] first reported the case of uterine rupture associated with rudimentary uterine horn. The Maternal mortality rate in early 1900s was reported to be 47.6%.[13] The prognosis of pregnancy in the rudimentary horn is poor for the patient.[11] Rupture of the horn is still common. Early intervention has resulted in low maternal mortality rate which is around 5%. The wall of uterus is thicker and more vascular than the tube. Hence, bleeding is more severe in accessory horn rudimentary pregnancy.[14]

Rudimentary horn in the muscle is exceptionally thin and the endometrium is nonfunctional. Hence, in

most cases, placentation is pathological.[15] The increased frequency of ectopic pregnancies favors removal of the rudimentary horn and its tube when found. Presently, this can be done by laparoscopic means.

In this case, since the patient reported after rupture, the diagnosis was only confirmed by laparotomy and timely resuscitation with expeditious surgery enabled us to treat and save the patient.

CONCLUSION

Pregnancy in a rudimentary horn carries grave risk to the mother. There is need for increased awareness of this rare condition and to have a high index of suspicion where the possibility of early detection before rupture is unlikely.

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