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Case Report

Ruptured Rudimentary Horn Ectopic Pregnancy: A Case Report

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Abstract

Rudimentary horn pregnancy, a rare form of ectopic pregnancy, occurs when the embryo implants in the rudimentary horn of an unicornuate uterus. This condition presents significant diagnostic and management challenges, often leading to life-threatening complications if untreated. This case study highlights the diagnosis, clinical management, and outcomes of a patient with a rudimentary horn pregnancy.

Key Words: Rudimentary horn; ectopic pregnancy; mullerian duct malformation

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Introduction:

Mullerian duct anomalies are rare, and a unicornuate uterus with a rudimentary horn represents a small fraction of such cases. Unicornuate uterus is a type 2 classification with unilateral hypoplasia or agenesis that can be further sub-classified into communicating, non-communicating, no cavity, and no horn.[1-2] The majority (up to 92%) of rudimentary horn are non-communicating.[3] The presence of a rudimentary horn complicates pregnancy, as implantation in this region often leads to rupture due to the horn's limited distensibility. Rudimentary horn pregnancies occur in approximately 1 in 76,000 pregnancies,[3] and early diagnosis is critical due to the high risk of rupture, typically between 12 to 20 weeks gestation. Diagnosis prior to rupture occurs in as little as 14.0% of cases by ultrasonography.[4] This case report highlights the diagnosis, clinical management, and outcomes of a patient with a rudimentary horn pregnancy.

Case Presentation

A 25-year-old, G3P2(NVD) with amenorrhoea of 14 weeks was presented to the obstetrics outpatient department of Monno Medical college hospital with complains of pain abdomen for two days with gradual increased intensity, more in the lower abdomen associated with vomiting and one episode of syncopal attack. She was married for 10 years and had previous history of two vaginal deliveries. Her menstrual cycles were regular with no prior known gynecological issues. Her prenatal care was unremarkable until the sudden onset of symptoms. On admission she was in hypovoleumic shock with severe pallor, no icterus, pulse rate was 106/min, blood pressure 60/40 mm of Hg and respiratory rate was 20/min. On abdominal examination the abdomen was tense, tender and distended. Pelvic examination revealed extreme paleness of vagina and fullness in the fornixes with cervical movement tenderness. USG of lower abdomen showed empty uterine cavity and mild to moderate pelvic collection. As the patient was in shock, she was taken for immediate laparotomy after resuscitation. On opening the abdomen, the peritoneal cavity was filled with huge amount of fresh and clotted blood. There was a ruptured non communicating horn of uterus on the left side of the uterus (Figure I). A dead fetus was found in the peritoneal cavity and the cord with placenta was attached with ruptured rudimentary horn (Figure II). The right cornu of the uterus was normal in size with tube and ovary. The ruptured rudimentary horn with attached left tube was resected by placing double clamp at its base. Left ovary,

right tube & ovary left in situ. Haemostatic sutures with vicryl 1-0 were given in the resected margin of uterus. Per operatively patient was transfused with 3 units of blood and her recovery was uneventful. She was discharged on 5th post operative day in good condition.

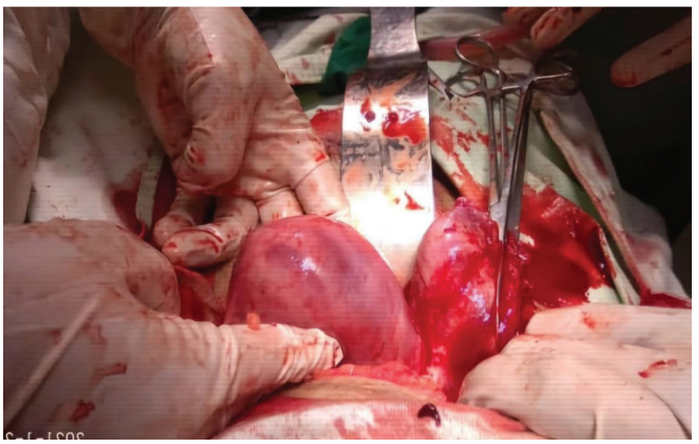

Figure I: Preoperative ruptured rudimentary horn on left side

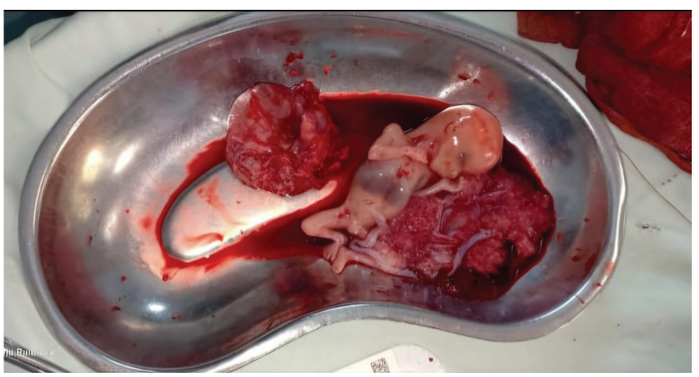

Figure II: Fetus and Placenta

Discussion

Rudimentary horn pregnancy remains a diagnostic challenge due to its rarity and the difficulty in differentiating it from normal intrauterine pregnancies, especially in early stages. The first case of uterine rupture associated with rudimentary horn was reported in 1669 by Mauriceau.[5] A careful pelvic examination in the first trimester showing deviated uterus with a palpable adnexal mass should arouse suspicion of a Mullerian anomaly.[6] Ultrasound, hysterosalpingogram, hysteroscopy, laparoscopy, and MRI are diagnostic tools.[7] Fedele et al[8] have found ultrasonography to be useful in the diagnosis. Mohsin et al[9] conducted a prospective study in 2001, which showed ultrasound examination clearly diagnostic in 96.3% patients without the help of Beta hCG in ectopic pregnancy.

Magnetic resonance imaging has proven to be a useful, noninvasive tool for the diagnosis of Mullerian abnormalities,[10] but was not feasible in this case because of acute presentation requiring early exploratory laparotomy.

Early rupture is a hallmark of rudimentary horn pregnancies, 70.0 to 90.0% rupture before 20 weeks and can be catastrophic.[11] Kadan and Romano12 described rudimentary horn rupture as the most significant threat to pregnancy and a life-threatening situation.

Rupture leads to severe hemorrhage associated with high maternal morbidity and mortality if not promptly treated. Surgical removal of the rudimentary horn is the standard treatment, with either laparoscopic or open surgical approaches depending on the clinical situation and gestational age.

Conclusion

This case highlights the importance of early diagnosis and intervention in rudimentary horn pregnancies. Prompt surgical management is crucial to prevent rupture and its associated complications. For women with a history of Mullerian anomalies, thorough antenatal imaging can prevent delayed diagnosis of such high-risk pregnancies, leading to improved maternal outcomes.

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Contributions to authors: Both authors have contributed from the diagnosis and management of the patient.

Conflict of Interest: No competing interests.

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