ORIGINAL RESEARCH PAPER
Volume - 15 | Issue - 05 | May - 2026 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

RUPTURED RUDIMENTARY HORN PREGNANCY AT 13 WEEKS PRESENTING AS ACUTE ABDOMEN: A DIAGNOSTIC CHALLENGE

Obstetrics & Gynaecology

Dr.Renuka Kawde	Junior Resident, Department of Obstetrics & Gynaecology, GMCH Chhatrapati Sambhajinagar
Dr.Prashant Bhingare	Associate Professor, Department of Obstetrics & Gynaecology, GMCH Chhatrapati Sambhajinagar
Dr.Shrinivas Gadappa	Professor and Head of Department, Department of Obstetrics & Gynaecology, GMCH Chhatrapati Sambhajinagar
Dr.Anurag Sonawane	Associate Professor, Department of Obstetrics & Gynaecology, GMCH Chhatrapati Sambhajinagar
Dr. Ankita Khiste	Junior Resident, Department of Obstetrics & Gynaecology, GMCH Chhatrapati Sambhajinagar

ABSTRACT

Pregnancy in a rudimentary horn is a rare and potentially fatal obstetric condition with an incidence of less than 1 in 150,000 pregnancies. Early diagnosis remains difficult due to nonspecific clinical features and limitations of ultrasonography. We report a case of a 26-year-old G2P1L1 female who presented with acute abdominal pain at approximately 13 weeks of gestation. Ultrasonography performed four days prior suggested a live intrauterine pregnancy. On admission, the patient was haemodynamically compromised with severe anaemia (hemoglobin 4.3 g/dL). Repeat ultrasonography revealed a gestational sac containing fetus in the abdominal cavity with absent cardiac activity and approximately 1000 ml haemoperitoneum. Emergency exploratory laparotomy confirmed rupture of the left rudimentary horn. Excision of the rudimentary horn was performed with adequate transfusion support. This case highlights the diagnostic dilemma associated with rudimentary horn pregnancy and underscores the need for high clinical suspicion despite apparently normal imaging.

KEYWORDS

Rudimentary horn pregnancy; haemoperitoneum; uterine anomaly; second trimester rupture; diagnostic challenge

INTRODUCTION

Pregnancy in a rudimentary horn of a unicornuate uterus is a rare form of ectopic gestation, with an incidence estimated between 1 in 76,000 to 1 in 150,000 pregnancies.[1] It results from abnormal development and incomplete fusion of the Müllerian ducts, leading to formation of a non-communicating uterine horn capable of implantation.[2]

The clinical significance of this condition lies in its high risk of rupture due to poor musculature and limited distensibility of the rudimentary horn, typically occurring between 12 and 20 weeks of gestation and associated with life-threatening intraperitoneal hemorrhage.[1,3] Maternal morbidity remains considerable, particularly when diagnosis is delayed.

Despite advances in imaging, early diagnosis remains challenging. Ultrasonography, though widely used, has limited sensitivity and may misinterpret rudimentary horn pregnancy as intrauterine gestation.[4] This diagnostic limitation contributes significantly to delayed recognition and emergency presentation. Indian studies have similarly highlighted late diagnosis and rupture as common clinical presentations.[5,6] We report this case due to its rarity and important implications for early detection and management.

CASE REPORT

A 26-year-old G2P1L1 female, presented to Government Medical College and Hospital, Chhatrapati Sambhajinagar with complaints of acute abdominal pain. She was referred from a private hospital where ultrasonography revealed a fetus en sac of 13 weeks 2 days gestation in the abdominal cavity with absent cardiac activity and approximately 1000 ml hemoperitoneum.

Her obstetric history included one previous full-term normal vaginal delivery of a male child two years prior. There was no history of hypertension, diabetes, tuberculosis, asthma, thyroid disorder, seizures, or previous surgeries. She had received one blood transfusion prior to referral. An earlier ultrasonography performed on 4 days prior, had reported a single live intrauterine pregnancy of 14 weeks 1 day gestation.

On admission, her general condition was poor with marked pallor. She was afebrile, with pulse rate 136/min and blood pressure 100/60 mmHg. Abdominal examination revealed distension, tenderness, and dullness on percussion. On per vaginal examination, the cervical os was closed, bleeding was present on the examining finger, and the uterine fundus could not be localized. Laboratory investigations revealed hemoglobin of 4.3 g/dL, total leukocyte count of 11,000/mm³, and platelet count of 1.42 lakh/mm³.

A provisional diagnosis of ruptured rudimentary horn pregnancy with hemoperitoneum and severe anaemia was made. Emergency exploratory laparotomy was performed under general anaesthesia. Intraoperatively, rupture of the left rudimentary horn was noted with fetus enclosed in sac within the abdominal cavity and approximately one litre hemoperitoneum. The abortus weighed 50 grams. Excision of the rudimentary horn was performed. The patient received 2 units packed red cells intraoperatively, followed by 2 units packed cells and 4 units fresh frozen plasma postoperatively. Broad-spectrum antibiotics and supportive care were administered. The postoperative course was uneventful.

DISCUSSION

Rudimentary horn pregnancy is a rare form of ectopic pregnancy resulting from implantation in a non-communicating uterine horn, often due to transperitoneal migration of sperm or ovum.[1,2] The structural inadequacy of the horn predisposes to rupture, most commonly between 12 and 20 weeks of gestation.[3]

The present case highlights a critical diagnostic challenge, where prior ultrasonography suggested a normal intrauterine pregnancy. Similar findings have been reported in Indian studies. Delayed diagnosis remains a major concern. Indian studies by Gadekar et al. and Shetty et al. have reported similar presentations with acute abdomen and hemoperitoneum due to rupture in the early second trimester.[5,6] These findings highlight the persistent diagnostic challenge in routine clinical practice.

Ultrasonography remains the primary diagnostic tool; however, its sensitivity is limited. Classical criteria such as pseudo-bicornuate uterus appearance, absence of continuity between the gestational sac and cervical canal, and surrounding myometrium are often overlooked.[4] MRI provides better anatomical delineation and improves diagnostic accuracy but is not feasible in emergency situations.[8]

Clinically, rupture presents with acute abdomen and signs of hypovolemic shock. In this case, severe anaemia (Hb 4.3 g/dL), tachycardia, and intraoperative finding of approximately 1-liter

hemoperitoneum indicate significant hemorrhage. Compared to previously reported Indian cases with lower hemoperitoneum volumes, this case demonstrates a more severe clinical presentation.[7]

Management depends on the stage at diagnosis. In unruptured cases, laparoscopic excision is preferred; however, rupture necessitates emergency laparotomy.[6,8] Early diagnosis significantly reduces morbidity and allows minimally invasive management. A key clinical implication from this case is that a previously documented intrauterine pregnancy does not exclude a rudimentary horn pregnancy, underscoring the need for meticulous evaluation of uterine anatomy in early scans.

CONCLUSION

Rudimentary horn pregnancy is a rare but life-threatening obstetric condition with a high risk of rupture in the early second trimester. This case underscores the importance of careful assessment of uterine anatomy during early pregnancy evaluation and maintaining a high index of suspicion in patients presenting with acute abdomen. Early diagnosis and timely surgical intervention are critical to reducing maternal morbidity and improving clinical outcomes.

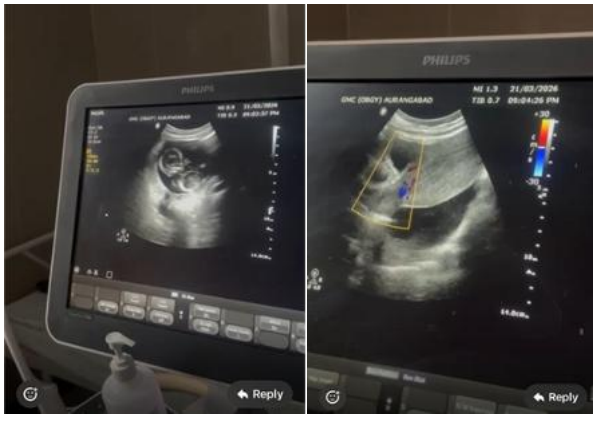

Figure 1: Ultrasonography showing fetus en sac in abdominal cavity with absent cardiac activity

Figure 2:Intraoperative image showing ruptured rudimentary horn with hemoperitoneum

Figure 3:Excised rudimentary horn specimen

REFERENCES

1. Nahum GG. Rudimentary uterine horn pregnancy: the 20th-century worldwide experience of 588 cases. *J Reprod Med*. 2002;47(2):151–163.
2. Jayasinghe Y, Rane A, Stalewski H, Grover S. The presentation and early diagnosis of the rudimentary uterine horn. *Obstet Gynecol*. 2005;105(6):1456–1467.
3. Shin SY, Kim MJ, Kim YH. Non-communicating rudimentary horn pregnancy: a case report. *BMC Pregnancy Childbirth*. 2024;24(1):115.
4. Vaz SA, Dotters-Katz SK, Kuller JA. Diagnosis and management of congenital uterine anomalies in pregnancy. *Obstet Gynecol Surv*. 2017;72(3):194–201.
5. Gadekar MS, Arrawatia A, Yadav O. Pregnancy in rudimentary horn: a rare case report. *Int J Reprod Contracept Obstet Gynecol*. 2023;12(8):2568–2570.
6. Shetty AS, Tondge G. Unusual pregnancy in rudimentary horn of uterus: a case report. *Int J Reprod Contracept Obstet Gynecol*. 2024;13(9):2513–2516.
7. Goel P, Aggarwal A, Devi K, Takkar N, Saha PK, Huria A. Pregnancy in non-communicating rudimentary horn of a unicornuate uterus: a case report. *J Obstet Gynaecol Res*. 2005;31(6):551–553.
8. Sharma D, Dey M, Biswas A. Rudimentary horn pregnancy presenting as acute abdomen: a case report from a tertiary care centre in India. *J Obstet Gynaecol India*. 2019;69(Suppl 2):184–187.