



**ORIGINAL RESEARCH PAPER**

**Obstetrics and Gynaecology**

**“A RARE CASE OF PREGNANCY IN THE RUDIMENTARY HORN OF A BICORNUATE UTERUS”**

**KEY WORDS:** Uterine anomaly, Rudimentary horn, ectopic pregnancy,

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**ABSTRACT**

Pregnancy in the rudimentary horn of a bicornuate uterus is a rare event. However, it is associated with significant maternal morbidity and mortality. Therefore, early diagnosis and treatment is of pivotal importance to avert such catastrophe. We present a case of 25 years old second gravida patient with previous LSCS (short spacing) at 4 months of pregnancy with pain abdomen. A lump of the size of a cricket ball could be felt in the right lower abdomen. She was diagnosed as abdominal pregnancy by ultrasound and put for laparotomy. At laparotomy, it was found to be a case of pregnancy in the right rudimentary horn. Excision of the horn along with the G-sac was done followed by repair of the remaining uterine tissues. The postoperative period was uneventful and she was discharged from hospital on 4th postoperative day. This case report therefore is aimed at emphasizing the need to diagnose such cases early to prevent catastrophes.

**INTRODUCTION:**

Uterine anomalies occurring due to developmental defects in the Mullerian duct, ranges from 0.1%-3% [1]]. Unilateral hypoplasia of the ducts result in a unicornuate uterus with a rudimentary horn. The rudimentary horn may be communicating or non-communicating type. Interestingly pregnancy in the non-communicating rudimentary horn may occur through transperitoneal migration of spermatozoa or fertilized ovum followed by implantation in the horn [1]]. Such pregnancies occur in 1:76,000-1:160,000 cases, making it a rare obstetrical condition [2]. The early diagnosis of a rudimentary horn pregnancy is of utmost importance since it may be associated with life-threatening bleeding in the event of uterine rupture.

**Case Report:**

A 25 years old lady second gravida with previous LSCS 8 months back presented at the antenatal OPD of Gauhati Medical College and Hospital on 27<sup>th</sup> September of 2021, with pain abdomen for 10 days. She delivered 8 months back and was in the period of lactational amenorrhoea. On examination her vital signs were stable. However a firm well defined mass of approximate size 8cm X 8cm could be felt in the right lower abdomen. It was slightly tender with smooth surface and restricted mobility. On per vaginal digital examination, the uterus could be felt separately from the mass. Pelvic ultrasound revealed a gestational sac containing a live fetus corresponding to 14 weeks 2 days of gestation outside of uterus.

laparotomy, however pregnancy was found inside right sided rudimentary horn (non-communicating) of the uterus as shown in the figure. The rudimentary horn was excised along with the G-sac and the remaining tissues were repaired. The patient received one unit of blood transfusion intraoperatively. Her postoperative period was uneventful and she was discharged after 72 hours.



**Fig. 1: Pregnancy in rudimentary horn**

A differential diagnosis of abdominal pregnancy was made and the case was put for laparotomy next morning. At



**Fig. 2. : Resected G-sac with fetus inside**



**Fig. 3. : Uterus- post repair.**

**DISCUSSION:**

A unicornuate uterus accounts for around 2.4–13% of all Müllerian anomalies [3], out of which rudimentary horns are found in 74% of unicornuate uterus.[4] In the majority of cases the rudimentary horn is non-communicating.[5] It has also been reported that rudimentary horns have a tendency to be located more on the right side (57–80%), as was also observed in the present case.[5],[6],[7]

Most cases of pregnancy in the rudimentary horn are misdiagnosed through ultrasound as cornual, tubal, intrauterine, and abdominal pregnancy [2]. The rate of misdiagnosis is high, and is done even by the most experienced radiologist probably due to its rare occurrence

and non-familiarity with this condition. In contrast, magnetic resonance imaging (MRI) is a better non-invasive diagnostic tool with higher accuracy for diagnosis of Mullerian duct abnormalities. However, its application in emergency situations is often not possible [8]

Rudimentary Horn Pregnancy is best managed surgically with excision of the uterine horn which combats high risk of recurrence. MRI can help outline the anatomical relation between the uterus and the rudimentary horn.

The precise clinical diagnosis of a rudimentary horn pregnancy is difficult. The sensitivity of ultrasonography for diagnosis is low and decreases with advancing pregnancy. [9] As in the present case, the pregnant rudimentary horn can be misdiagnosed on the early antenatal ultrasonogram for an tubal ectopic or abdominal or even normal intrauterine pregnancy, and the unicornuate uterus for a leiomyoma. [10][11]

A misdiagnosis of normal intrauterine pregnancy may often lead to the implementation of inappropriate treatment modalities. Attempts to terminate a pregnancy in a rudimentary horn by dilatation and curettage or administering misoprostol have been reported in the literature [9] Tsafrir et al., described ultrasonographic criteria for the differentiation of rudimentary horn pregnancies from tubal or cornual ectopic and bicornuate uterine pregnancies including: (i) A pseudo pattern of an asymmetrical bicornuate uterus (with variations between the myometrial thicknesses of the two uterine horns and a marked distance between them), (ii) absence of visual continuity between the cervical canal and the lumen of the pregnant rudimentary horn and (iii) the presence of myometrial tissue surrounding the gestational sac. The anatomic configuration of the uterine malformation and the noncontinuous nature of the cervical canal with the gestational sac could be better assessed with the help of MRI scan whenever possible. [12]

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