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Case Report

## Successful management of pregnancy in a non-communicating rudimentary horn of a unicornuate uterus

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### ABSTRACT

Pregnancy in a rudimentary horn pregnancy is a rare clinical condition. The usual consequence is rupture culminating in hypovolemic shock. We had a different scenario of unruptured rudimentary horn pregnancy which was detected following failed attempt of MTP. She underwent laparotomy and excision of rudimentary horn. Post-operative period was uneventful. We present this case not only because of rarity but also high index of suspicion is required to diagnose at an early stage before a devastating course.

**Keywords:** Pregnancy, Rudimentary horn, Un ruptured

### INTRODUCTION

Mullerian duct anomalies have been reported to occur in 1 in 1000 women. Unicornuate uterus is a class II defect (AFS) which occurs because of non development of unilateral Mullerian duct or failure of lateral fusion of malformed Mullerian duct with its normal counterpart. A rudimentary horn is present in 80-90% of unicornuate uterus. It can be communicating or non communicating.<sup>1</sup> It can have functional or non functional endometrial cavity. Usually rudimentary horn with functional endometrial cavity presents early in post pubertal period as cyclical abdominal pain due to hematometra. The incidence of rudimentary horn pregnancy is 1 in 100,000 to 1 in 150,000 pregnancies.<sup>2</sup> Pregnancy occurs in such non communicating pregnancy through transperitoneal migration of sperm or fertilized ovum.<sup>3</sup> The diagnosis of rudimentary horn pregnancy before rupture is unusual. The clinical suspicion, USG and in doubtful cases MRI

may help to diagnose rudimentary horn pregnancy before rupture. We report one such case and its management.

### CASE REPORT

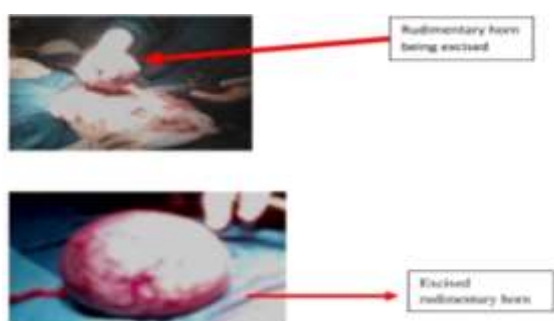
23 years Mrs. X was referred from private nursing home following failed attempt of medical termination index pregnancy. She was married for 3 years and lost her husband recently. Following administration of misoprostol she started having spotting P/V. Curettage was attempted and subsequently USG showed fetus above the uterus and hence she was referred to our institute.

She was not pale, hemodynamically stable. Abdominal examination showed asymmetrically enlarged uterus of 14 weeks more on the right side. Cervix was deviated to left on speculum examination. On bimanual pelvic examination, uterus was deviated posteriorly and to left.

It was normal in size. There was a firm mass of 10×12 cm felt through the right fornix which was tender.



**Figure 1: USG shows empty uterus & fetus in rudimentary horn.**



**Figure 2: Intra operative images of rudimentary horn.**

Her baseline investigations were normal. USG showed a single live fetus of 14 weeks surrounded by thin rim of myometrium above the normal uterus. Decidual reaction was there in normal uterus. Both ovaries were normal. No free fluid in POD. Kidneys were normal on both sides.

**Provisional diagnosis: Unruptured rudimentary horn pregnancy**

She was taken up for laparotomy with adequate blood. Intraop findings: No hemoperitoneum. 16×12 cm highly vascular globular mass was seen on the right side of pelvis and it was attached to uterus by thick pedicle. The right fallopian tube was hypoplastic. The mass was medial to the right round ligament. Excision of rudimentary horn with right salpingectomy was done. Her post op course was uneventful and got discharged 5 days later.

**DISCUSSION**

Rudimentary horn pregnancy is not a rare entity nowadays. The review of literature has shown 80% of such pregnancies ended up in rupture beyond first trimester. The neonatal survival was 6% and the maternal mortality was 5.1%.<sup>3</sup> However maternal mortality due to ruptured rudimentary horn pregnancy is uncommon

nowadays. On the contrary cases of late and false diagnosis leading to uterine rupture have been reported repeatedly in the recent literature. Unicornuate uterus is associated with renal (15-40%) and skeletal abnormalities (12-50%).<sup>4</sup> The various obstetric outcomes associated with unicornuate uterus are abortions (37%), preterm labour (16%), malpresentations and incoordinate uterine action. But if pregnancy occurs in rudimentary horn the most common presentation is rupture. The differential diagnoses for rudimentary horn pregnancy are tubal ectopic pregnancy, interstitial pregnancy, pregnancy in bicornuate uterus and abdominal pregnancy. USG plays a major role in diagnosing rudimentary horn pregnancy. The sonographic criteria for the diagnosis of rudimentary horn pregnancy was first described by Tsafirir et al in 2005 are (a) pseudo pattern of asymmetrical bicornuate uterus (b) absent visual continuity tissue surrounding the gestational sac and the uterine cervix (c) presence of thin myometrial tissue surrounding the gestational sac. Additionally, hypervascularity typical to placenta accrete may support the diagnosis of rudimentary horn pregnancy.<sup>5</sup> In doubtful cases MRI plays a major role. Both coronal and sagittal planes are used for accurate assessment of the uterine connection to the horn, and either confirm or rule out a cavity communication.<sup>6</sup> Laparotomy and excision of the rudimentary horn is the ideal management. But if diagnosed early, facilities and expertise are available laparoscopic removal also can be done.<sup>7</sup> In selective cases conservative approach till viability is achieved also can be done under close monitoring. However safer option may be immediate laparotomy. The fallopian tube on the side of rudimentary horn also has to be removed to prevent future development of ectopic pregnancy.

**CONCLUSIONS**

Rudimentary horn pregnancy is a rare and disastrous condition. Rupture before first trimester is rare. If rupture occurs they usually present in shock because of life threatening intraperitoneal hemorrhage. Every attempt should be made to diagnose this condition before rupture. If we diagnose before rupture not only we can avoid such devastating course but also minimally invasive surgery can be performed. Another important thing is whenever medical termination of pregnancy is failed we should always reexamine for the possibility of extra uterine pregnancy and rupture uterus.

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