PREGNANCY IN THE RUDIMENTARY UTERINE HORN: A CASE REPORT

Awol Yeman Legesse, MD[1], Hale Teka, MD[1], Abida Hassen, MD[2], Ermias Abate Tinikishea, MD[1],
Sumeya Ahmed Mohammednur[3], MHA

ABSTRACT

OBJECTIVE: Rudimentary horn is a developmental anomaly of the uterus. Pregnancy in a rudimentary horn is rare, represents a form of ectopic gestation. The diagnosis of the rudimentary horn pregnancy is very difficult before it ruptures.

CASE: We present a case of pregnancy in the communicating horn that was difficult to diagnose preoperatively. An emergency exploratory laparotomy was done considering abdominal ectopic pregnancy after the patient was given misoprostol for missed abortion from referral hospital. Our ultrasound evaluation revealed abdominal ectopic pregnancy. Intra operative finding was unruptured rudimentary horn. A non-viable female fetus with a birth weight of 200 g was delivered. The ruptured rudimentary horn and left tube were excised together.

CONCLUSION: Despite advances in ultrasound, the diagnosis of pregnancy in the rudimentary horn remains difficult with definitive diagnosis being made at laparotomy. It is very important to have high index of suspicion especially in resource limited setting where most patients present with rupture.

KEYWORDS: Rudimentary horn, Ectopic pregnancy, Mekelle University

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1 Department of Obstetrics and Gynecology, College of Health Sciences, Mekelle University, Mekelle, Ethiopia
2 Department of Obstetrics and Gynecology, University of Illinois at Chicago
3 Department of Public Health, College of Health Sciences, Mekelle University, Mekelle, Ethiopia

INTRODUCTION

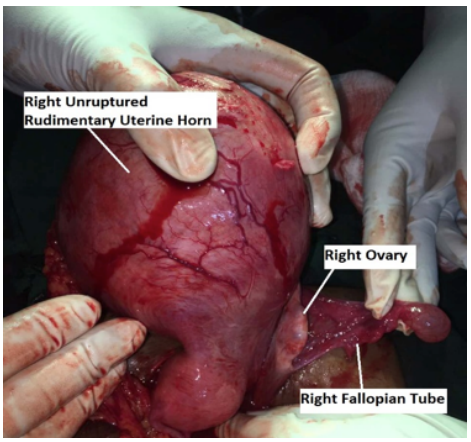
Unicornate uterus with rudimentary horn results from arrested development of one of the two mullerian ducts. This anomaly constitutes range of anatomical variations and is divided into four subgroups according to the American Fertility Society classification of Mullerian anomalies: IIa rudimentary horn with cavity communicating to unicornate uterus. II b with cavity non-communicating, IIC with no cavity and IId with no horn1. Prevalence of unicornate uterus with rudimentary horn is very rare. It is usually associated with obstetrical complications 2. Reported incidence of pregnancy in a rudimentary horn varies between 1/7,600 to 1/140,000. The pregnancy occurs most commonly in noncommunicating cavitary horn and it represents a form of ectopic gestation3-5.

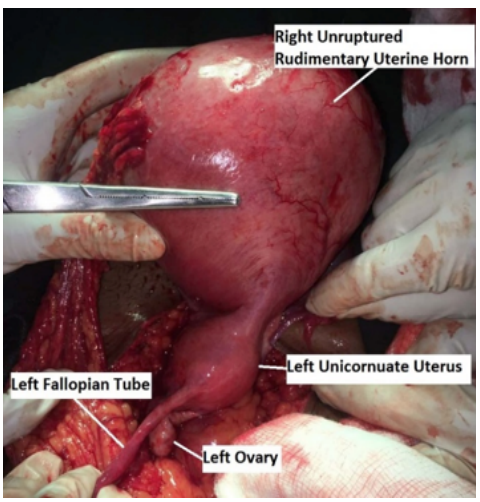
CASE REPORT

A 24 years old Gravida 3 Para 1(alive via spontaneous vaginal delivery), abortion 1(spontaneous at 2 months of gestation) presented at GA of 19 weeks and two days for antenatal care and told to have missed abortion. She was given 200 mg of Mifepristone oral route followed with 5 doses of 200 microgram misoprostol per vagina. Because there was no response after 24 hrs. rest the same dose of misoprostol was repeated at the same hospital but there was no response. Then she went to private clinic and was told to have abdominal ectopic pregnancy. Finally, she was referred to our hospital with the impression of abdominal ectopic pregnancy. On arrival to our hospital she was alert, blood pressure and pulse rate being normal. There was 16-week sized palpable pelvic mass with mild tenderness. Pelvic examination showed cervix closed and 16 weeks size bimanually palpable mass. Ultrasound examination was repeated and revealed abdominal ectopic pregnancy. All laboratory examinations were within normal range.

An emergency laparotomy was performed based on the suspicion of abdominal ectopic pregnancy. Abdomen entered via midline infra umbilical incision. Intraoperative finding was right-sided unruptured gravid rudimentary horn measuring 15x14x7 cms. The right rudimentary horn was excised completely along with ipsilateral tube after right side Utero ovarian ligament was clamped, cut and trans fixated. The rudimentary horn had no direct communication to the uterine cavity. The gravid uterus was dissected there was dead 200gm fetus and placenta inside it.

The left tube and ovary appeared healthy and normally attached to the uterus. The right tube and ovary were attached to the rudimentary horn. She was discharged improved on her third postoperative day. Histopathology confirmed rudimentary horn pregnancy, intravenous pyelogram showed no associated renal anomaly.





DISCUSSION

This is a rare case of non-communicating rudimentary horn of a unicornuate uterus (class IIb Mullerian duct anomaly according to classifications of the American Society of Reproductive Medicine 1998). The non-communicating cavitated rudimentary horn has probably become functional after many years of menarche. The case shows the clinical and radiological dilemma posed in such atypical presentation of mullerian anomalies.

Unicornate uterus with rudimentary horn often presents with first trimester recurrent abortion (5-10%) second trimester loss (25 %) or it is incidentally discovered during infertility work up. There may be a wide range of clinical presentation ranging from mild dysmenorrhea during puberty to sever pelvic pain among parous women6. Our patient had normal gynecologic history with previous reasonably normal reproductive outcome.
Rudimentary horn pregnancy is due to intraperitoneal transmigration of sperm or contralateral tubal pick of the fertilized ovum in the peritoneal cavity. Natural history of rudimentary horn pregnancy involves rupture in 80-90 % in second or early third trimester3-5.

Rudimentary horn pregnancy is difficult to diagnose based on clinical examinations. But it can be suspected on early pelvic examination, wherein a mass presenting outside the uterine angle (Baart de la Faille's sign) or displacement of the uterine fundus to the contralateral side with rotation of the uterus causing elevation of the affected horn (Ruge Simon syndrome) can be found. Diagnosis by ultrasonography is highly operator dependent and is usually missed as in our case. Around 26 % of cases are diagnosed antenatally prior to rupture. Also, the sensitivity of ultrasonography in diagnosing horn pregnancies decreases as pregnancy advances beyond first trimester, as seen in our case where sonography misled the clinician and diagnosed missed abortion and later on abdominal pregnancy` 7. Diagnosis is usually confirmed by MRI3. Other modalities for diagnosis are CT scan and laparoscopy. HSG can help diagnose the anomaly in non-pregnant state. Although neonatal survival rate in case of rudimentary horn pregnancy is only 11 %, early diagnosis before rupture can prevent maternal morbidity8.

What makes special this case is the fact that termination of pregnancy with misoprostol had been tried unsuccessfully twice for the diagnosis of missed abortion. non-response after prior attempts at termination by misoprostol is often associated with a missed diagnosis of an extrauterine pregnancy.

In early gestation, medical management by methotrexate followed by laparoscopic excision has also been tried9. Prior to pregnancy, excision of horn to prevent complications is also recommended. Though immediate surgery is recommended after the diagnosis even in unruptured cases as in our case., conservative management till viability of fetus has been tried in few selected cases provided that facilities for emergency surgery are available and patient is properly counseled. A case of pregnancy progressing till the third trimester delivered by cesarean section resulting in live birth has been documented. Induction of labour termination of pregnancy in a rudimentary horn should be avoided as it can lead to rupture of the horn. It is essential to avoid pregnancy for 1 year after surgical excision8.

CONCLUSION

Pregnancy in a rudimentary horn is catastrophic to the mother. It is very important to have high index of suspicion especially in resource limited setting where most patients present with rupture. We have reported the case to show difficulties faced in establishing diagnosis of rudimentary horn pregnancy, and to consider possibility in patients no response attempts of termination of pregnancy.

CORRESPONDING AUTHOR:

Awol Yemane Legesse, MD
Department of Obstetrics and Gynecology, College of Health Sciences, Mekelle University, Mekelle, Ethiopia
Email: hayuawol1@gmail.com

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