

Case Report

Pregnancy in a Non-Communicating Rudimentary Horn of Uterus: A Clinical Case Report

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Abstract

Pregnancy in non-communicating rudimentary horn is extremely rare. It carries grave risk to mother and fetus due to rupture of rudimentary horn in second trimester of pregnancy. Here is a case

of ruptured rudimentary horn pregnancy at gestation of 14 weeks. Laparotomy was done and the rudimentary horn was excised. Postoperative recovery was uneventful.

Keywords: Two unicornuate uteruses, rudimentary horn, rupture.

Introduction

Mullerian duct anomalies in female results from incomplete development or hypoplasia, defective fusion of two mullerian ducts or incomplete absorption of septum between two fused ducts during embryonic life¹. Prevalence of congenital uterine anomalies is 1:200 to 1:600 in fertile women.¹ Pregnancy in rudimentary horn is rare between 1 per 76,000 to 1 per 140,000 pregnancies.^{2,3} A case of ruptured rudimentary horn pregnancy is reported here.

Case History

A 18 years old, primigravida presented with history of amenorrhoea for 3 months, severe lower abdominal pain for 2 days followed by pain in whole abdomen. She could not remember her last date of menstrual period. She was married for 1 year.

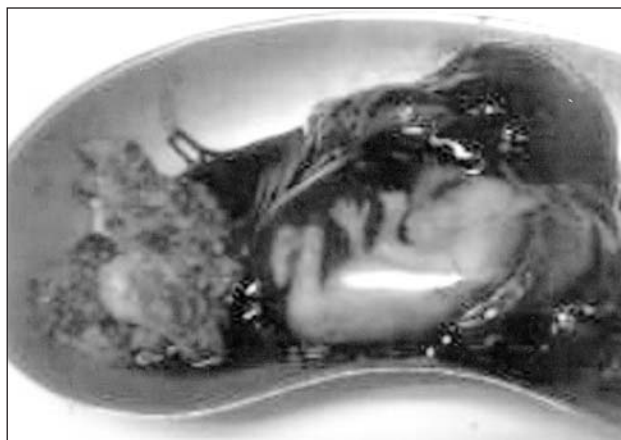
On examination, she was moderately anaemic, pulse was 100 beats per minute and blood pressure was 70/50 mm of Hg. Her abdomen was mildly distended and tender. Uterus was not palpable per abdomen. Per vaginal examination revealed no bleeding, fornices were full and cervical movement was tender.

A clinical diagnosis of ruptured ectopic pregnancy was made and patient was resuscitated simultaneously with IV fluid and 2 units of blood. She was prepared for emergency laparotomy. Urgent ultrasonography of abdomen revealed uterus of normal size, endometrial cavity was empty, well defined, 11 mm thickness of endometrium and a large gestational sac with a fetus of 25 mm BPD corresponding to 14 weeks pregnancy was found in right adnexal region. Fetal movement and cardiac activity were absent. Moderate collection was found in Morison's pouch, both flanks and pelvic cavity. Bowel loops were floating in abdominal cavity.

On laparotomy, there was hemoperitoneum of about 2 liters of blood with clots. A fetus of about 3-4 cm with intact amniotic sac was found within a big clot; there were two unicornuate uteruses. The right horn was smaller than left horn and did not communicate with cervix and left horn; rather it was connected by a band like structure with them. The right non-communicating horn was 5x4x3 cm in size and ruptured on superior border. Right horn was communicating with right fallopian tube and left horn communicated with left fallopian tube. Both ovaries were healthy; there was a corpus luteum on the right ovary and placental tissue still attached to right rudimentary horn. Excision of right rudimentary ruptured horn of uterus along with right fallopian tube was done. After proper hemostasis and peritoneal toileting abdomen was closed in layers. Postoperative period was uneventful and she was discharged on 6th postoperative day. She was reviewed after 4 weeks when investigation ruled out any renal tract anomalies.

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Discussion

Rudimentary horn with unicornuate uterus results from failure of development of one müllerian duct, incomplete fusion with contra lateral side. Ninety percent (90%) of rudimentary horn is non-communicating to main uterine cavity.⁴

Pregnancy in a non communicating rudimentary horn results from transperitoneal migration of sperm or conceptus, although corpus luteum observed on contra lateral side only in 10% cases.⁵ Though majority of patients with müllerian anomalies are asymptomatic, nearly one quarter may present with sign symptoms of reproductive dysfunction. It can be associated with dysmenorrhoea, hematometra and endometriosis because of functioning endometrium. Teenagers may give history of spasmodic dysmenorrhoea. Married women may give history of infertility, recurrent second trimester abortion, preterm labour, malpresentation, IUGR. Majority of rudimentary pregnancy present with rupture before 20 weeks. Intraperitoneal hemorrhage is torrential and life threatening. Diagnosis is only by suspicion. Bimanual palpation of a mass extending outside the uterine angle (Baart de la faille's sign)⁶ or displacement of fundus contralateral side with rotation of uterus and elevation of affected horn (Ruge Simon Syndrome) and deviation of uterus to one side with adnexal mass in pregnancy may indicate rudimentary horn pregnancy. An ectopic pregnancy in rudimentary horn of uterus or interstitial pregnancy may be confirmed during ultrasonography by the eccentric location of amniotic sac surrounded by myometrium seen separate from uterus.⁷ In non pregnant patient during hysterosalpingography, uterus is seen deviated to one side with unilateral tubal block. Laparoscopy gives most accurate diagnosis. Once diagnosis is strongly suspected, laparoscopy or laparotomy is a must, excision of rudimentary horn advised.⁸

The first reported case of uterine rupture associated with rudimentary uterine horn was in 1699 by Mauriceau and Vassal.⁹ Maternal mortality rate before 1900 was reported to be 47.6%.¹⁰ Rupture of the horn is still common but maternal mortality rate has declined to around 5% through early intervention. Because the wall of uterus is thicker and more vascular than the tube, bleeding is more severe in rudimentary pregnancy. In the present case, since the patient reported after rupture, the diagnosis was only confirmed by laparotomy and timely resuscitation with expeditious surgery enabled to save the patient.

Conclusion

Pregnancy in a non communicating rudimentary horn is rare and carries grave consequences for the mother and the fetus. There is need for increased awareness of this rare condition and diagnosis should be done before conception or at least before rupture occur. Excision of rudimentary horn is advised to prevent life threatening massive intraperitoneal hemorrhage and maternal mortality. Evaluation of renal system is advised because of high incidences of associated urological anomalies, about 50% to 80% and must be diagnosed either by palpation at laparotomy or postnatally by MRI or intravenous pyelography.

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