Case Report : Obstetrics

Rare Case of Pregnancy in Left Non-Communicating Rudimentary Horn of Unicornuate Uterus

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Abstract

Pregnancy in the rudimentary horn is rare and carries grave consequences for the mother and fetus. 90% of them present with intraperitoneal haemorrhage in the second trimester due to rupture of the horn.

A case report of unruptured pregnancy in a left rudimentary horn of unicornuate uterus at a gestational age of 30weeks 4 days. Laparotomy was done and the rudimentary horn excised along with left sided salpingectomy. The need for a high index of suspicion and the role of ultrasonography in the accurate diagnosis of such cases is highlighted.

Introduction

Pregnancy in a rudimentary horn of unicornuate uterus is rare. An incidence of 1 in 76,000 - 1,50,000 pregnancies is reported in the literature.[1] Unicornuate uterus is a congenital anomaly of the uterus and results from a non-developing Mullerian duct or agenesis of the Mullerian system.[2] It was first classified in 1979 by Buttram and Gibbons and further revised by the American Society of Reproductive Medicine in 1988.[3,4] It is a Type II classification that can be further sub classified into communicating, non communicating, no cavity and no horn.[2] In 83% of the cases the rudimentary horn has been found to be non-communicating.[5] In woman who previously delivered vaginally, this problem was difficult to be suspected.

Case Report

Mrs. LX 23 y G2 P1+0 was admitted to our hospital with 8 months pregnancy with absent fetal movements for 2 days. She had previous full term vaginal delivery at home. On examination - P/A Fundal height was 30 wks, oblique lie, liquor reduced, FHS absent, P/S - slight bleeding present, P/V- cervix closed, posterior, presenting part not felt. USG showed single intrauterine dead fetus of 30 weeks 4days with oblique lie, cephalic and oligohydroamnios. Induction failed and emergency LSCS was planned. On laparotomy 6-8 weeks size right unicornuate uterus with non-communicating left horn having 30-week pregnancy with bilateral small tubes. Still born female fetus was delivered out from left rudimentary pregnant horn. Placenta was thin and covering almost ¾ th of cavity & was adherent to uterine wall with no intervening deciduas. Umblical cord was short. Myometrium was very thin. Liquor was absent. On exploration, cavity of left horn was neither communicating with the cavity of right horn nor with the cervix, confirmed by P/V examination also. Right non pregnant horn was communicating with the cervix. Excision of the left horn along with tube done to prevent the risk of repeat pregnancy in this horn. HPE of tissue from right horn shows decidual cast with no chorionic villi.

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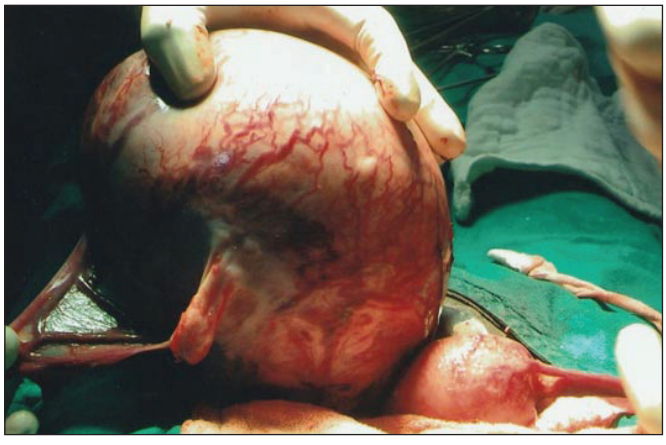

Fig. 1: Pregnancy in non-communicating rudimentary horn of unicornuate uterus.

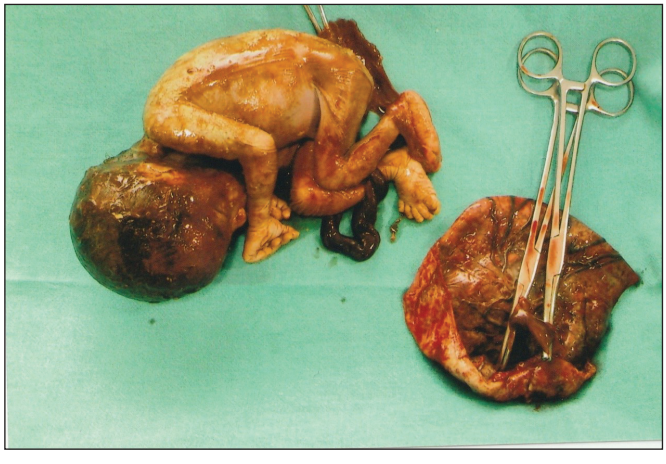

Fig. 2: Fetus and placenta.

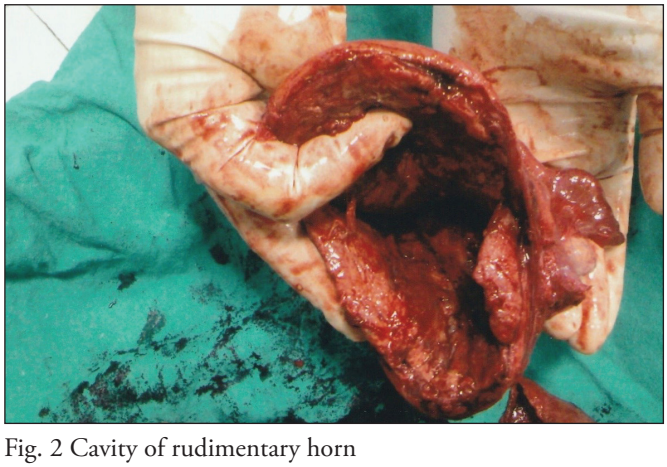

Fig. 2 Cavity of rudimentary horn

Her post operative period was uneventful. She was discharged on the 8th post-operative day and adviced follow-up after 6 weeks along with advice for IVP.

Discussion

Unicornuate uterus results from the failure in the development of one of the paramesonephric ducts either partially or completely. Partial development of one of the ducts gives rise to a rudimentary uterine horn. Pregnancy in a non-communicating rudimentary horn occurs probably by fertilization taking place due to transperitoneal migration of the sperm or the fertilized ovum, as evidenced in 8% of such cases, corpus luteum is found on the contralateral side to the rudimentary horn having the pregnancy.[1] Unicornuate uterus is most of the time an accidental finding which is usually asymptomatic until reproductive age. It presents as first trimester loss (24.3%), recurrent first trimester miscarriage (5–10%), a second trimester loss (25%), ectopic pregnancy (2.7%), or found during an infertility work-up.[2] In cases with successful pregnancy there is increased risk of preterm labour, abnormal fetal lie, intrauterine growth restriction preterm delivery (20.1%), intrauterine demise (10.5%) and (49.9%) preterm live birth up to 28–30 weeks of gestation.[6]

The usual and most dreaded complication is the massive intraperitoneal haemorrhage due to rupture of the horn which can be life threatening to the mother, resulting from a thin myometrium of the rudimentary horn, with the non-functional endometrium leading to adherent placenta as found in our case. The timing of rupture varies from 5 to 35 (avg 21.5) weeks depending on the horn musculature and its ability to hypertrophy and dilate. Few pregnancy cases with late or false diagnosis, which have progressed to 3rd trimester resulting in live births but among them neonatal survivability was only 6%.[7]

Early diagnosis is essential and challenging for the management as the consequences of rupture can cause significant mortality and morbidity to the mother & fetus. A careful ultrasound in the 1st trimester can diagnose pregnancy in the rudimentary horn. Tsafrir et al[8] has proposed set of criteria for diagnosis of pregnancy in the rudimentary horn: (1) A pseudo pattern of asymmetrical bicornuate uterus, (2) Absent visual continuity of tissue surrounding the gestational sac and the uterine cervix & (3) Presence of myometrial tissue surrounding the gestational sac. Sensitivity in detecting rudimentary horn uterus through ultrasound is only 30% and the condition is commonly missed.[9] Sensitivity decreases as the pregnancy advances, due to lack of definitive clinical criteria, in such cases MRI is very useful to confirm the diagnosis.

Interesting to note in our case was that induction had failed and incidental diagnosis of unicornuate uterus with pregnancy in non-communicating left rudimentary horn could be made peroperatively. The rudimentary horn was excised along with ipsilateral fallopian tube to reduce the risk of recurrent pregnancy in rudimentary horn in future and also to reduce the risk of dysmenorrhea or hematometra. As 31% of patients with mullerian anomalies will also have urinary tract anomalies with congenital absence of a kidney,[3] it is mandatory for this woman to have further assessment before attempting any future pregnancy.

In one report (Konar et al), three fetuses have been recovered on laparotomy from a ruptured gravid horn of a bicornuate uterus.[10]

Conclusion

Although pregnancy in a non-communicating rudimentary horn is uncommon, the diagnosis is always challenging.

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