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Pregnancy in Rudimentary Horn of Uterus: A case report

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Abstract: Pregnancy in rudimentary horn is rare. Rudimentary horn is a result of failure of complete mullerian duct development. It carries a risk of rupture, especially in the second trimester which can be life threatening to the mother and the fetus both. Diagnosis of pregnancy in rudimentary horn prior to delivery is often difficult. It can be missed in routine antenatal examination. It requires a high index of suspicion. We report a case of ectopic pregnancy in a 20 year old female, in rudimentary horn of uterus that ultimately resulted in rupture. Timely intervention in the form of laparotomy and excision of horn saved the patient.
Keywords: Rudimentary horn, uterus, ectopic pregnancy.

INTRODUCTION

Pregnancy in rudimentary horn of uterus is a rare obstetric entity. Antenatal diagnosis of pregnancy in rudimentary horn is sometimes difficult [1]. It can be missed in routine ultrasonography and in majority cases it is detected after rupture has occurred [2]. The risk of rupture is approximately 50%, out of which most occur in the second trimester [3]. It requires a high index of suspicion. We reported a case of ectopic pregnancy in rudimentary horn of uterus in a young female of age 20 years that resulted in rupture.

CASE REPORT

A 20 year old female, primi, was admitted through acute emergency unit of our hospital under Obstetrics and Gynaecology department. She had a history of 16 weeks amenorrhea and presented with acute pain in the left iliac fossa. She had an episode of vomiting and gave history of giddiness. Vomiting was not provoked by any oral intake. There was no history of bleeding per vagina. No previous records of ultrasound scan were available.

On examination, patient had mild degree of pallor and tachycardia. Blood pressure recorded was 100/50 mm Hg. Per abdomen examination revealed tenderness in the left iliac fossa. Clinically, ectopic pregnancy was suspected. Urine pregnancy test was positive. An emergency ultrasound scan was done showing a ruptured extrauterine pregnancy. Serum HCG levels were not done. The patient was immediately taken up for laparotomy. On laparotomy, uterus was found slightly enlarged. Rudimentary horn of uterus was seen on the left side with gestational sac bulging from its superior surface. Both the tubes and ovaries were normal. Post-laparotomy specimens were sent to the department of pathology for histopathological examination. Post-operative recovery of the patient was uneventful.

The tissue received in our department was left salpingectomy specimen measuring 6 x 0.5 cm along with fetus and hemorrhagic soft tissue measuring together 7 x 4 x 1.5 cm and a soft tissue that seemed to be the horn of uterus measuring 3x2.5x1.5 cm. Microsections examined from salpingectomy specimen showed structure of fallopian tube with patent lumen. Microsections from the horn like soft tissue showed the structure of rudimentary horn with presence of chorionic villi. Hence, a diagnosis of ectopic pregnancy in rudimentary horn of uterus was made.

Fig-1: Gross image showing rudimentary horn along with foetus and products of gestation

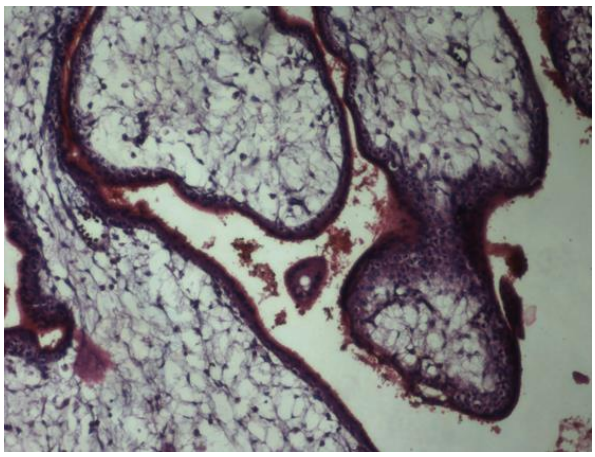

Fig-2: H & E stained section showing structure of villi (100x)

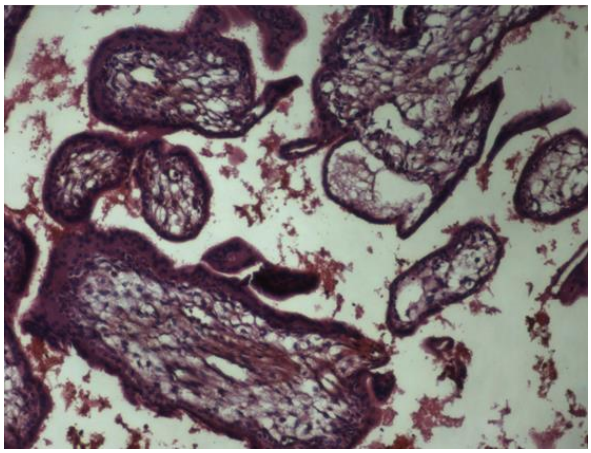

Fig-3: H & E stained section showing trophoblastic structure (100x)

DISCUSSION

Uterine malformations comprise a group of miscellaneous congenital anomalies of the female genital system. The mean prevalence in the general population is around 4.3% [4]. In the non-whites, the incidence is estimated to be 12/1000. Out of all ectopic, 98.5% are singleton tubal pregnancies while the rest occur at other sites. This creates a diagnostic challenge in early stages, hence associated with greater morbidity and mortality [5].

A unicornuate uterus results due to unilateral failure of normal Mullerian system development. In most of the instances, the Mullerian duct has developed into a rudimentary uterine horn only partially [3]. The rudimentary horn may sometimes consist of a functional cavity, usually which is non-communicating. The pregnancy in such non-communicating horn is possible only through transperitoneal migration of sperm or fertilized ovum. However, it is associated with high rate of spontaneous abortion, preterm labor, intraperitoneal hemorrhage and uterine rupture.[6]

Although majority of patients with mullerian anomalies are asymptomatic, nearly one quarter may present with signs and symptoms of reproductive dysfunction. Teenagers may give history of spasmodic dysmenorrhea. Married women may give history of infertility, recurrent second trimester abortion, preterm labor, malpresention, intrauterine growth retardation [7]. Depending on the ability of the horn to undergo hypertrophy of its musculature the rupture occurs usually between 5 weeks to 35 weeks. Eighty percent of these rupture occurs before 20 weeks. The hemorrhage that occurs because of rupture is massive and often life threatening [7, 8].

The traditional treatment employed for rudimentary horn pregnancy is laparotomy and surgical removal of the pregnant horn to prevent rupture and further pregnancy in the same horn [9]. Removal of the gravid rudimentary horn of uterus and leaving behind the normal horn along with tube and ovary is the accepted treatment. However, where removal of is not possible, a total hysterectomy has to be performed [5].

CONCLUSION

This case report has highlighted the need of detailed clinical evaluation, increased awareness of this rare condition and high index of suspicion for early presumptive diagnosis.

COMPETING INTERESTS

The authors declare that they have no competing interests.

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