CASE REPORT

An Unusual Case of Rupture of Right Horn of Bicornuate Uterus at Eighteen Weeks of Gestation

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Introduction

Rupture of gravid uterus is mainly reported in multigravida or with previous scar, mostly in labour. The rupture at early gestation i.e. first and second trimester is very rare and mostly associated with uterine anomalies or cornual pregnancy.

As long as normal development occurs there may not be any abnormal features. The horn containing the gestation sac enlarges with the pregnancy, while the other horn, if felt, might be considered to be a fibromyoma. Malformation of the vagina such as septum may draw our attention to such anomalies in the uterus. The differential diagnosis is between threatened miscarriage, twisted ovarian pedicle or secondary abdominal pregnancy.

Case Report

A 28 year old G2P1AO was admitted on 23rd November 2007 with complaint of pain in abdomen since 10 days,

syncopal attacks and vomiting since 10 days following 4 months amenorrhea. There was no history of incontinence of urine or defecation. There was no history of intervention. She had an uneventful delivery of full term male baby 6 years back. Her previous menstrual cycles were regular with average flow (Figs. 1, 2, 3).

On examination her general condition was poor, pallor was present, pulse 128/min, BP 90/50 mmHg, and lung fields were bilaterally clear. On per abdominal examination, mild distention was present with guarding and rigidity. A tender 16–18 week size gravid uterus was felt in the hypogastric region. On per vaginal examination, Os was closed, with no bleeding. An urgent ultrasound revealed normal size uterus, with central and thick endometrium. No intrauterine mass was seen. Right lumbar region showed a fetus with BPD corresponding to 17 weeks with absent fetal heart and free fluid in peritoneal cavity. This patient was immediately shifted for laparotomy and two pints of blood were arranged.

After taking full aseptic precautions abdomen was opened by sub-umbilical midline incision. Hemoperitoneum was drained. Four month old fetus was removed from peritoneal cavity. Bicornuate uterus present. Left horn of uterus and tubes normal. Right horn of uterus was ruptured. Right tube and ovary were normal. Right ovary was conserved. Ruptured right horn was removed and uterus was repaired in two layers with 1–0 vicryl. Patient stood the procedure well. Her post operative period was uneventful and stitches were removed on 8 day. She was advised to avoid conception for 1 year by using contraceptives.

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Fig. 1 Ultrasound of the patient showing fetus of BPD 17 weeks in right lumbar region

Fig. 2 Shows rupture right horn of bicornuate uterus *U* uterus, *LT* left fallopian tube, *LO* left ovary, *RO* right ovary, *RH* right horn (ruptured), *LH* left horn

Discussion

Bicornuate uterus is formed when the development is arrested just after the fusion of Mullerian ducts i.e. after 12th week. Incidence of rupture of rudimentary horn is most likely in late first trimester or even in second trimester. Incidence of pregnancy in rudimentary horn is 1/40,000 pregnancies [1]. Chang et al. [2] reported rupture of rudimentary horn as late as 25 weeks of gestation.

In our case it was bicornuate with rupture of right horn. It is pretty unusual to encounter rupture at early gestation i.e. first and second trimester. These are usually associated

Fig. 3 shows that fetus ensac with trophoblastic tissue with the removed ruptured right horn *RH* right horn, *TT* trophoblastic tissue, *F* fetus ensac

with uterine anomalies as in our case. Similar case has been reported by Mane et al. [3] and Kore et al. [4]. Routine ultrasonography done at 14–16 weeks in all antenatal clinics may help in early diagnosis i.e. before rupture. This will decrease the mortality and morbidity associated with rapid and massive hemoperitoneum occurring because of rupture. Achiron et al. [5] reported two cases of prerupture USG diagnosis in such cases.

Treatment usually involved is removal of the ruptured horn. Since the scar is present on the upper part of uterus, it is important to avoid pregnancy for at least 1 year. If pregnancy occurs it is to be carefully monitored with early hospitalization and elective cesarean section.

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