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Case report

SILENT UTERINE RUPTURE OF UNSCARRED UTERUS- AN UNUSUAL PRESENTATION.

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ABSTRACT

It is very rare to see rupture of uterus in an unscarred uterus. But in cases of previous abortions or cesarean section or scarred uterus, uterine rupture is seen in few cases. Silent uterine rupture is very rare. If there is fetal demise & presenting part is very high up in pelvis not responding to routine induction, possibility of rupture uterus should be kept in mind. Ultrasound has an important role in the diagnosis of silent uterine rupture. A case of silent uterine rupture of unscarred uterus with fetal demise, that remained undiagnosed for many weeks, is described.

Keywords: Uterine rupture, Unscarred, Silent, Fetal demise

INTRODUCTION

Rupture of the unscarred pregnant uterus is a rare event, estimated to occur in 1/5700 to 1/20,000 pregnancies.[1-4] In one series, there were 25 uterine ruptures in women with unscarred uteruses and these events accounted for 13 percent of ruptures in this study.[4] The incidence of rupture in unscarred and scarred uteruses was 0.7 and 5.1 per 10,000 deliveries, respectively. The pathogenesis of rupture of the unscarred uterus is not well-defined. Rupture in these cases has been attributed to inherent or acquired weakness of the myometrium, disorders of the collagen matrix (Ehlers-Danlos type IV)[5-8], and abnormal architecture of the uterine cavity (bicornuate uteri, uterus didelphys, “blind uterine horns”). [9-11] Over distension of the uterine cavity, whether absolute or relative to the size of the cavity, may be the major physical factor associated with rupture in such cases. Over distension has even been reported as a cause of rupture of the non gravid uterus. [12] Uterine rupture is an uncommon but is a fatal complication of pregnancy. The difficulty in diagnosis and management arises in cases of chronic and silent uterine rupture. Silent ruptures have also been reported after D&E and hysteroscopic procedures.[13-14] Normal cardiotocographs (CTG) can be obtained in silent uterine rupture hence it is not a useful tool in the diagnosis. [15] Obstetricians should be aware of the possibility of silent rupture of Uterus. Ultrasound has an important role in the diagnosis of silent uterine rupture. [16] We present a case of silent uterine rupture that remained undiagnosed for many weeks.

CASE REPORT

A patient G2 P0 A1 presented in emergency with H/O amenorrhea 31wks with paralytic ileus. She was referred from periphery on 20.9.2014. Her general parameters were maintained. Blood Pressure & Pulse was in normal range. The investigations done in civil hospital were all normal but her HB – was 7.0gm %.

She gave H/O vomiting, constipation & mild abdominal Pain. She was calm, conscious and cooperative .On P/A examination Uterus Height was 30Wks with Fetal parts palpable & FHS -146 / min and regular. Surgical Consultation was taken in view of abdominal distension as abdomen was distended & tense. No guarding or rigidity was there. Bowel sounds were absent. Ultrasonography & Ryles tube aspiration was advised.

She was having regular Antenatal care at Moga Civil hospital, her previous Ultrasound done there on 2/8/14 showed 25-26 wks pregnancy with 34x23mm hypoechoic Collection (Retroplacental Collection) Placenta was anterior & in upper segment. [Fig. 1]

After admission U/S done 22/9/14 showed her upper abdominal Scan to be normal .Cortical echogenicity was increased of Right Kidney. Also Right Pelvi Calayceal system showed hydronephrosis. There was moderate amount of free fluid in abdomen. Fetal condition was normal & gestation was 31wks. [Fig. 2] .There was no comment on uterine contour. She was given I/V fluids, antibiotics & Continuous Ryles tube aspiration was done. Two Blood transfusions were given on 22nd Sep. 2014. Distension was still there but uterus was relaxed& FHS was 136 /mt reg. She did not complain of any pain and any loss of fetal movements. On 23rd Sep. fetal heart sound was not heard but her bowel movements were normal & abdomen was relaxed. U/S done to see fetal Cardiac activity, where it was declared to be Intra Uterine Death. Comment on the contour of the uterus again was not made. So plan for induction of labor was to be made & in view of that pervaginum exam was done. On P/V Exam. Cervix was found to be unfavourable admitting 1 F & presenting part was very high. A suspicion of rupture was made & repeats U/S was done which showed a rent in the anterior wall of the uterus. Placenta was anterior & free fluid was seen in all the peritoneal recesses. During all these days her general parameters were maintained. Her BP Was 110/70 & there was no tachycardia.. After this decision of laparotomy was made .One unit of blood was given preoperatively. On opening the abdomen there was haemoperitoneum and baby was lying outside the uterus in the amniotic sac .There was a huge vertical rent in the midline of the uterus & placenta was partially attatched to the uterus & partially to the omentum. [Fig. 3] Repair of the uterus was impossible so hysterectomy done after taking consent. Also removal of omentum where placenta was adherent was done.

This Case presented with intestinal Obstruction so diagnosis of pregnancy with peritonitis & intestinal pathology was made. Her obstruction got relived with treatment & abdomen became soft. Also fetal Cardiac activity was normal. Her general parameters were normal. So Diagnosis of uterine rupture was missed. As the rupture progresses and ended up in IUD, led on to the reaching of diagnosis. In this case as there is history of previous abortion, so at that time silent perforation could have led on to scarred uterus. So in this pregnancy that scar gave way & progressed in silent rupture. Probably starting asretroplacental clot which slowly progressed into complete rupture in one and a half month time resulting in IUD with haemorrhage.

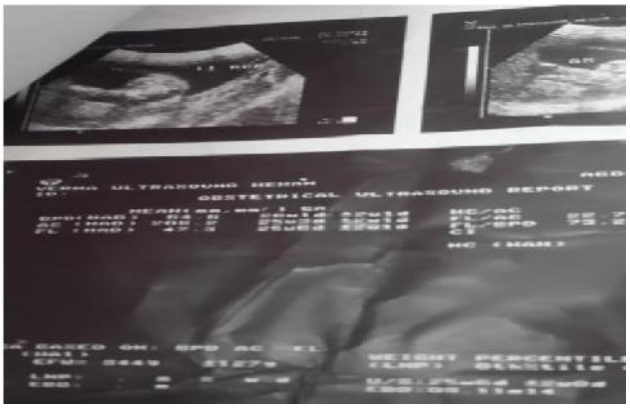

Fig 1: Ultrasound at 25-26 wks

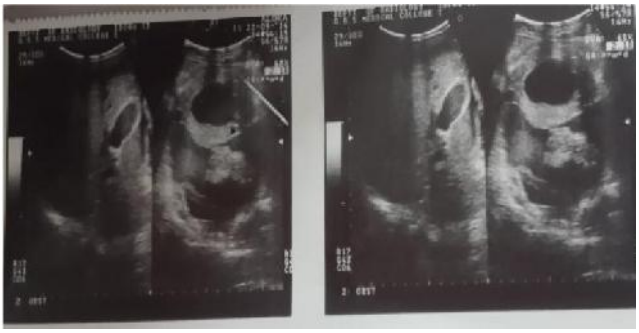

Fig2: Ultrasound at 31 wks

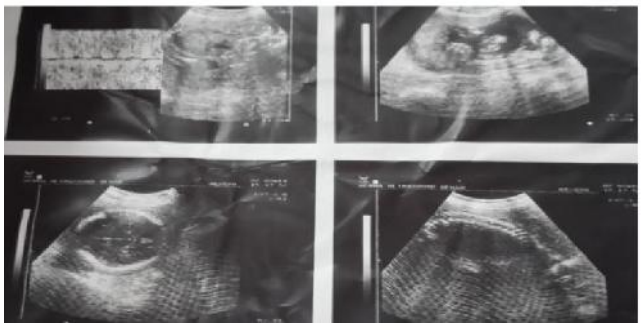

Fig3: Ultrasound after rupture

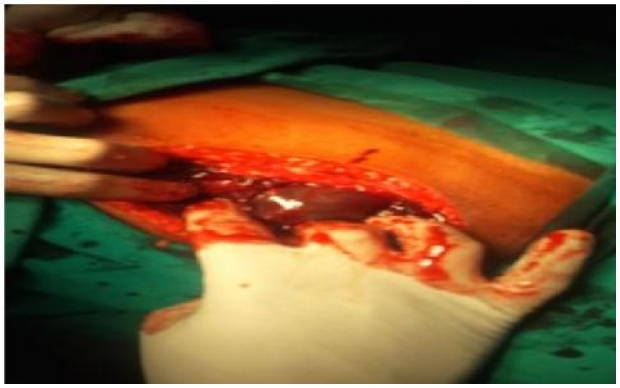

Fig 4 : Hemoperitoneum

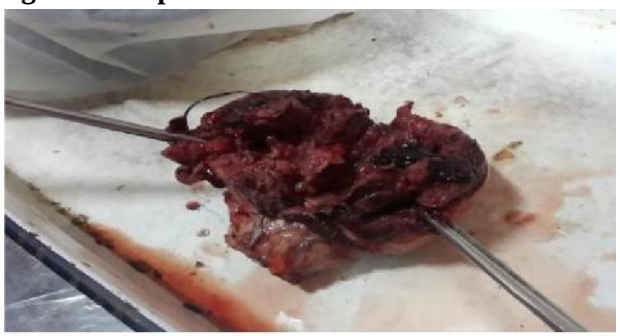

Fig 5: Ruptured uterus

DISCUSSION

The 'silent' rupture of uterus is encountered when the patient is asymptomatic and rupture or rent in the uterus is discovered incidentally on ultrasound or at surgery. Risk factors are previous scar or other surgeries upon uterus, induction of labour by prostaglandins and augmentation of labour by oxytocin in a multiparous woman. [13-14]

The dilemma in diagnosis arises when uterine rupture remains asymptomatic or presents with non-specific symptoms, e.g., vague abdominal pain or discomfort for many weeks. There is difficulty in diagnosis due to lack of resources, expertise and ultrasound skills. CTG is not a useful tool in the diagnosis of silent uterine rupture. [15]

In our case, the woman sought medical advice outside at Moga at 25-26 weeks, she had a small rent in the uterus which was interpreted as a retroplacental clot . During subsequent one and a half month, the whole of the anterior surface gave way, resulting in extrusion of fetus into the peritoneal cavity in sac and ultimately fetal demise occurred. Also Placenta got attached to omentum .

A case similar to this is reported where a lady presented at 29 weeks with abdominal pain for several weeks and ultrasound revealed foetal parts outside the uterine cavity. [16] Two other cases are reported where they conservatively managed prenatal uterine rupture, diagnosed first at 17 and 19 weeks respectively on ultrasound. [17-19] Silent rupture can occur in previous scars as well as in unscarred uterus. [20-21] These ruptures remain silent for days and weeks. Another case is reported where two large 5 Cm and 10 Cm complete ruptures were incidentally discovered on third postnatal day during tubal ligation [22]. An unusual presentation of prenatal silent rupture is reported as anhydramnios and lung hypoplasia at 31 weeks. Further investigation revealed foetal leg protruding through uterine wall[23].

CONCLUSION

High index of suspicion should arise for uterine rupture in cases of previous scar or procedures upon uterus, when they present with unusual features and suspicious ultrasonography findings like bands, cysts , free fluid and unexplained anhydramnios. Ultrasonography has an important role in diagnosing silent and old ruptures. Every effort should be made to seek expertise to define uterine wall integrity.

Conflict of Interest: Nil

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