



SPONTANEOUS UTERINE RUPTURE DURING PREGNANCY - A CASE REPORT

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Abstract :

Uterine rupture in pregnancy is very rare and potentially catastrophic for both mother and fetus. The most common cause of uterine rupture is giving away of previous caesarean uterine scar. Spontaneous rupture of an unscarred uterus during pregnancy is a rare occurrence. We hereby present a rare case of a spontaneous complete uterine rupture in a non labouring unscarred uterus of a 33 year old nulliparous women at 35 weeks of gestation. She presented with lower abdomen pain and decreased fetal movements at our Hospital. Even before getting into labour, patient suddenly collapsed and Emergency laparotomy was proceeded in view of suspicious concealed abruption. There was frank hemoperitoneum along with a dead baby in the abdominal cavity. There was rupture of uterine fundus extending from one cornual end to the other and closure of uterine rent proceeded. Spontaneous rupture of uterus occurs when there is a an upper segment uterine scar.

She had a past history of eventful uterine curettage which was the risk factor for uterine rupture.

Keyword : spontaneous uterine rupture, unscarred uterus, pregnancy, uterine curettage

INTRODUCTION:

Rupture of the pregnant uterus is an obstetric and surgical emergency that can lead to maternal and fetal death. Previous uterine surgery is the most common risk factor. Rupture of the unscarred uterus is rare, but appears to account for an increasing proportion of all uterine ruptures [1]. Overall incidence of rupture of uterus during pregnancy is 1 in 1,536 pregnancies (0.07%) [5]. The maternal and fetal prognosis are bad especially when the rupture occurs in an unscarred uterus. The normal, unscarred uterus is least susceptible to rupture, the rate being 1 in 8,434 pregnancies (0.012%) [5]. The incidence is significantly higher in developing countries than developed countries, possibly

related to higher parity, longer labors, and a higher frequency of contracted pelvis in these areas, as well as a frequent lack of access to emergency obstetrical services [2,3,4]. Congenital uterine anomalies, multiparity, previous uterine myomectomy, the number and type of previous cesarean deliveries, fetal macrosomia, labor induction, uterine instrumentation, and uterine trauma all increase the risk of uterine rupture, whereas previous successful vaginal delivery and a prolonged interpregnancy interval after a previous cesarean delivery may confer relative protection. We hereby report a case of spontaneous uterine rupture at 35 weeks and 1 day of gestation in a non labouring patient who has never had a previous uterine surgery, but who had an uterine curettage for abortion

CASE REPORT :

Mrs. Tamilarasi, 33 years of age, gravida 2 abortion 1, was admitted at our Hospital on November 27, 2011- 4.00 am at 35 weeks and 1 day of gestation with complaints of lower abdomen pain and decreased fetal movements past three hours. Her last menstrual period was on March 24, 2011. Her first obstetric event was a missed abortion at 45 days amenorrhea for which dilatation and curettage was done at a local village 3 years back. She had a history of one year amenorrhea. She underwent treatment for the same at a renowned private hospital in Chennai where hysteroscopy and subsequent infertility treatment with ovulation induction drugs was done. This second pregnancy was booked at the same hospital where serial ultrasound scans were done in the 1st, 2nd and 3rd trimester which showed a fetus at 35 wks of gestation in cephalic presentation with placenta attached to the posterior and right lateral wall of uterus and adequate amniotic fluid. No history of insertion of contraceptive devices after her abortion. She was not a known case of pre eclampsia, hypertension, diabetes, heart disease, epilepsy, tuberculosis or bronchial asthma.

There was no significant family history. On admission she was comfortable, not anaemic, her vitals were stable and she was not in labour. On clinical examination the uterus corresponded to 34 weeks of gestation, relaxed, not acting, not tense, not tender, fetal head was unengaged, 4/5 th palpable per abdomen and the heart rate was good. Per vaginum examination revealed a soft, unefaced cervix of 3 cms in length, os admitting 1 finger with head at brim. The admission non stress test was found to be reactive. She was able to feel good fetal movements within half an hour of admission. Her blood group was B Rhesus positive. Her complete blood count was found to be within normal limits. Haemoglobin : 12 gm% , Packed cell volume : 32 %, Platelets - normal, Blood sugar – 104 mg%. Urine examination for albumin / sugar was nil. After 12 hrs of admission she complained of acute epigastric pain associated with giddiness. Within few seconds she collapsed. She became extremely pale with tachypnea, tachycardia and low volume pulse. Her blood pressure dropped to 90/60 mm of Hg and SPO2 was 98 %. Abdomen examination revealed tense and tender uterus of 34 weeks of gestation with no detectable uterine activity. There was also abdomen distension and the fetal heart sound was not detectable. Her vaginal examination revealed the same findings as on admission. A clinical diagnosis of concealed abruptio was made. Her coagulation profile was normal. With ongoing resuscitative measures (100 % O2 by face mask, crystalloids, colloids) patient was prepared for Emergency laparotomy.

View of the repaired fundal rupture of uterus



Picture of the dead born girl baby

Under general anaesthesia, abdomen was opened by suprapubic transverse incision. Frank hemoperitoneum of approximately 1000 ml of fresh blood was drained. Baby was found lying within the peritoneal cavity and was immediately delivered within 20 minutes of diagnosis. It was a fresh, dead born, preterm girl baby weighing 2.2 kg. The gravid uterus was given away along its entire length at the fundal region extending from one cornual end to the other. The placenta was within the uterine cavity and was removed in toto.

There was no extension of the tear. Broad ligaments were found to be intact on either side. There was no undue bleeding intraoperatively. The uterine rent was sutured in two layers with 1-0 vicryl and since the cornual end was also involved, the same could not be spared. There is doubt of future fertility because of the involvement of cornual end. Per operatively 3 units of blood was transfused. The diagnosis of rupture uterus was made intraoperatively. Abdomen closed after securing perfect hemostasis. Post operatively 2 units of packed cells and 4 units of FFP transfused for an estimated blood loss of about 1000 ml. She was put on higher antibiotics (inj Cefotaxim 1gm iv bd, inj Gentamycin 80 mg iv bd, inj Metronidazole 400 mg iv bd for 5 days). The post operative period was uneventful. Suture removal was done on the 8th post operative day and the patient was discharged on the 10th post operative day with the advice of contraception for two years and she was explained about the chances of future pregnancy. Her discharge haemoglobin was 9.5 gm%. In view of the risk of early rupture of uterus in future pregnancy, she was advised early hospitalisation at 28 wks of gestation.

DISCUSSION:

Uterine rupture during pregnancy is a rare occurrence that frequently results in life-threatening maternal and fetal compromise, whereas uterine scar dehiscence is a more common event that seldom results in major maternal or fetal complications. By definition, uterine scar dehiscence constitutes separation of a preexisting scar that does not disrupt the overlying visceral peritoneum (uterine serosa) and that does not significantly bleed from its edges.

In addition, the fetus, placenta, and umbili- presenting fetal part, § diminished base- cal cord must be contained within the uter- line uterine pressure haemorrhage, and § ine cavity, without a need for cesarean de- shock. From the time of diagnosis to deliv- ivery due to fetal distress. By contrast, uter- ery, only 10-37 minutes are available be- ine rupture is defined as a full-thickness fore clinically significant fetal morbidity be- separation of the uterine wall and the over- comes inevitable. Fetal morbidity occurs lying serosa. Uterine rupture is associated as a result of catastrophic haemorrhage, with (i) clinically significant uterine bleeding fetal anoxia, or both. In our case the prob- (ii) fetal distress (iii) expulsion or protrusion able cause could be an uterine scar due of the fetus, placenta, or both into the ab- to an unrecognised incomplete or com- dominal cavity and (iv) the need for prompt plete perforation during uterine curettage. cesarean delivery and uterine repair or hys- The perforation may have been situated terectomy. Spontaneous ruptures are usu- at the uterine fundus and subsequently ally intrapartum (7) and associated with risk the products of conception of the current factors such as uterine abnormalities, pregnancy may have embedded itself in grandmultiparity, macrosomic fetus, cepha- that region, so that when there was a con- lopelvic disproportion and uterine trauma tinuous distension of uterus with the from prior instrumentation from abortion, evolving pregnancy, there was a stretch of version and oxytocin stimulation. Risk fac- the weakened area finally leading to rup- tors associated with early uterine rupture in ture and expulsion of fetus into the perito- pregnancy include previous salpingectomy neal cavity. This hypothesis has already and cornual resection following ectopic been made by Beven et al[6] Our first pregnancy, trauma, myomectomy, congeni- clinical diagnosis was concealed abrup- tal abnormalities and sacculum of the en- tion because of the sudden collapse of the trapped retroverted uterus. (8) non-labouring patient who was not known Maternal mortality from uterine rupture is to have had an uterine scar. The diagno- rare in developed countries unlike in devel- sis of uterine rupture was made intraop- oping countries where it ranges from 5 % to eratively only after visualising the hae- 15 % and fetal loss can exceed 80 % (2) moperitoneum. With such a catastrophic The initial signs and symptoms of uterine fundal rupture our intention was to save rupture are typically nonspecific, which the mother . Since there was no active makes diagnosis difficult and sometimes bleeding from the ruptured site and the delays definitive therapy. The signs and patient was a nullipara we opted for rent symptoms of uterine rupture largely depend closure so as to preserve the uterus. The on the timing, site, and extent of the uterine good recovery of the patient in the post defect. Uterine rupture at the site of a previ- operative period was due to the prompt ous uterine scar is typically less violent and surgical intervention, the retraction phe- less dramatic than a spontaneous or trau- nomenon of the uterus , antibiotic cover- matic rupture because of their relatively re- age and adequate blood replacement. duced vascularity. The classic signs and The patient was explained about the symptoms of uterine rupture are § fetal dis- chances of future pregnancies. In view of tress (Prolonged, late, or recurrent variable high risk of subsequent uterine rupture in decelerations or fetal bradycardia are often future pregnancy, she was advised con- the first and only signs of uterine rupture), traception for two years so that a healthy § loss of uterine contractility, § abdominal scar would be formed and about early pain, § recession of the hospitalisation at 28 weeks of gestation.

CONCLUSION:

Uterine rupture occurring on an unknown scarred uterus is sometimes an unpredictable event. It is associated with very poor maternal and fetal prognosis. Usually it occurs during labour, but sometimes as in our case it may occur even during pregnancy. Our case report showed that previous uterine curettage is a risk factor for uterine rupture due to unnoticed uterine perforation. The most consistent early indicator of uterine rupture is the onset of a prolonged, persistent, and profound fetal bradycardia. Ultrasound and external electronic fetal heart monitoring are essential to diagnose rupture uterus earlier. Although it has been recommended that hysterectomy has to be carried out in fundal rupture of gravid uterus to save the mother, we feel that management should be tailored to the individual patient, as in this case, on the basis of factors such as parity, extent of the defect and magnitude of bleeding.

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