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## Ruptured Uterus Requiring Emergency Hysterectomy for Saving Mother

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**ABSTRACT**

A 26 years woman with G3P2L0AO at 40 weeks and 6 days of gestation, but no antenatal clinic visit history presented to Gynecology and Obstetrics out patient clinic complaining decreased feeling of fetal movement since 2 days. Ultrasonography examination revealed fetal demise with amniotic fluid volume of 28 cm. Emergency lower segment caesarean section for ante partum hemorrhage was done. A vertical rupture of the posterior aspect of the uterus from fundus upto the level of cervix with hemoperitoneum of two liters was detected. A macerated dead fetus weighing 3.5 Kg was lying in the peritoneal cavity and the placenta was already partially separated. The mother after hysterectomy was treated in ICU for two days with antihyperglycemic agent additionally and discharged.

**Keywords:** hemoperitoneum, hysterectomy, misoprostol, rupture uterus

## INTRODUCTIONS

A cesarean hysterectomy is very different from a non-pregnant hysterectomy. It is uncommon emergency, life-threatening conditions that are stressful to everyone involved.<sup>1</sup>

Uterine rupture (UR) during pregnancy is a rare obstetrics complication. Spontaneous rupture can occur in previously scarred uterus following curettage, manual removal of placenta, grandmultipara, congenital anomaly. Iatrogenic rupture may occur with the use of oxytocin, prostaglandins/misoprostol, forcible external version or trauma. Rupture of the uterus occurs in 1 per 15000 deliveries. Unscarred uterine rupture during pregnancy is 1 (0.0033%) per 30,764 deliveries.<sup>2</sup> Overall incidence of pregnancy related uterine rupture is 1 (0.07%) per 1,416 pregnancies.<sup>3</sup>

## CASE REPORT

In June 2013, a 26 years woman presented to Gynecology and Obstetrics out-patient clinic complaining decreased feeling of fetal movement since 2 days. Obstetric history was gravida 3 para 2 with no living issue and 40 weeks plus 6 days of gestation. She had no antenatal clinic visit history. Ultrasonography (USG) examination showed intrauterine fetal demise with amniotic fluid volume of 28 cc. Her general condition was fair and the vital signs were within normal limit. On examination per abdomen, uterus was term size with cephalic presentation, head of the fetus was 4/5 palpable with no contraction. On vaginal examination, the cervical os was 1.5 cm soft, posterior, uneffaced, membrane intact, head of the fetus at -2. The patient and her husband were counseled regarding fetal demise based on the USG report, explained the necessity of induce labor to prevent further risk to the mother. Induction of labor with misoprostol in two doses of 25 ug per vaginal at 4 hours apart was given. During reassessment, after 4 hours, cervical os was 3 cm, cervix 50% effaced and planned to observe for further progress.

However, in two hours, the patient was found drowsy with blood pressure 90/50 mmHg. Her random blood sugar was 812 mg/dl. On abdominal examination, the uterus was tensed-up with free head of the fetus. On vaginal examination, the cervix was posteriorly pulled up and head of the fetus was felt high up. At the time, fresh blood was coming out from the cervical os. Then, as indicated, an emergency surgery was decided considering the case as ante partum hemorrhage with possibility of placental abruption. Diabetic ketoacidosis was ruled out and medical consultation was sought to involve physicians to manage high blood sugar and hypotension.

Intraoperative findings revealed two litres of blood in peritoneal cavity and vertical rupture of the posterior aspect of the uterus from fundus down to cervix extending laterally towards the right tuboovarian vessels. A macerated male dead fetus weighing 3.5 Kg was lying in the peritoneal cavity with head still within the uterus with placenta partially separated. Due to active bleeding, repair was not possible and the obstetrics team proceeded for hysterectomy after consent from her husband. The left tube and ovary was conserved. Four pints of blood was transfused during the operation due to blood loss. Then, the patient was treated in ICU. Hematocrit was 18%. Insulin was administered at 1 unit/hour for 2 days while ICU stay. Blood sugar monitoring was done six hourly. Then the patient was transferred to the general gynae/ obstetrics ward and treated with insulin 50:50 12 units before meals and metformin 500 mg orally twice daily.

Patient was discharged after 13 days with metformin 500 mg and advised to come for follow-up after one week. But she didn't come for follow-up.

## DISCUSSIONS

Uterine rupture is a severe obstetric complication. Rupture of the pregnant uterus is a major obstetric complication that occurs often with no warning signs. Uterine rupture is a potential complication for patients with non-scarred uterus as well as scarred uterus.<sup>4</sup>

The choice of surgical procedure depends upon the type, extent and location of the rupture as well as the patient's condition and desire to preserve her child bearing capacity. A retrospective study of uterus rupture, after 28 weeks of pregnancy, for the period of 20 years from 1985 to 2005 A.D. admitted in Prashuti Griha (Maternity Hospital), Nepal was carried out. In 20 years review, data indicated that 251 cases with ruptured uterus were admitted. Padhye reported that the total incidence of RU in her study was 1:1100 deliveries (0.09%) in mostly unbooked (app. 73%) patients. On the total, 70% (n=175) was complete rupture, incomplete rupture (n=64) 25% and "no mention" in 5% (n=12) cases.<sup>5</sup>

The incidence of unscarred uterus was reported in 1996 ref.. The rupture of unscarred uterus appear to occur more frequently in less developed countries due to high parity, long labor. Uterine rupture due to use of misoprostol has been reported but incidence of this type is reported. Diagnosis is made by non reassuring fetal heart rate pattern, cessation of contractions, loss of station, tenderness, vaginal bleeding, maternal tachycardia, shock.<sup>2</sup> In this case, there was loss of station with vaginal bleeding. According to meta-analysis done

from 25 studies from 1976-2012, the rate of spontaneous rupture of unscarred uterin in developed countries was 1 per 8,434 pregnancies (0.012%).<sup>6</sup> The rupture of uterus and expulsion of fetus into the peritoneal cavity, perinatal mortality rate was reported 74-92% and maternal mortality rate 1-13%.<sup>7</sup> Repair is mostly applicable where the margins are clean and is done by excision of the fibrous tissue. Repair and tubal sterilization is mostly done with a clean-cut scar rupture with completed family history. In the case of complete rupture, 10-20% required hysterectomy for hemostasis.<sup>8</sup>

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