

UTERINE RUPTURE A CASE REPORT

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ABSTRACT

Rupture uterus is defined as the dissolution in the continuity of the uterine wall beyond the period of viability.^[1] The most common etiology for uterine rupture is dehiscence of uterine scar tissue from previous cesarean section. In patient with uterine rupture and fetal expulsion to the abdominal cavity, fetal survival becomes extremely poor. Therefore, It is important for clinicians to understand the uterine rupture and able to give prompt treatment in order to prevent maternal and fetal morbidity or mortality.

KEYWORDS: Uterine rupture, Abdominal pain, pregnancy, multipara.

INTRODUCTION

A complete uterine rupture occurs when there is a direct connection between amnion and peritoneal cavity. This condition is extremely dangerous and mostly happens during labour and in patients with old pregnancy.^[5] The Incidence of uterine rupture probably depends on the standards of obstetric care and varies from 1:500 to 1:4000.^[1] The majority of rupture uterus occurs in multipara.

The etiology of uterine rupture is multifactorial, the most common cause is due to uterine scar dehiscence from previous cesarean section.^[2,3] Spontaneous rupture is more common than the traumatic variety and usually occurs during last few weeks of pregnancy usually in multipara.^[1] The prognosis of patient with uterine rupture is poor. In patient with uterine rupture and fetal expulsion to abdominal cavity is extremely bad. Therefore it is important for doctors to understand uterine rupture and be able to give prompt treatment in order to prevent maternal and fetal morbidity and mortality.

MATERIALS AND METHOD

Case report

G2P2L1 35+6 weeks of gestation complaining that she had sudden and severe abdominal pain, couldn't feel her baby movements since 6 hours before admission. Bloody discharge and history of trauma were denied. Patient had history of one casaerion section in previous pregnancy. She was scheduled for elective caeserean section at 38 weeks of gestation. However due to her complaints, she went to emergency room at the nearest hospital. Due to

non availability of facilities she was referred to our hospital.

Physical findings at our hospital showed that
O/E:

P – 104 bpm

BP – 150/ 100 mmhg

RR – 20/min

Tempeature – Afebrile

Pallor +

S/E:

RS – AEBE, Clear

CVS – S1S2 Normal

CNS- Consious and Oriented

Per Abdomen:

Fundal height ~ 34 to 36 weeks

Severe tenderness present over abdomen,

Fetal heart rate not audible

Fetal movements not felt

Per Vaginal

Os – closed

Cervix- uneffaced, unripe

No any discharge noted.

In addition, laboratory findings showed
hemoglobin 10.1 g/dl

Increased leukocyte (13, 410 cumm)

Normal platelet (2,90,000 cumm).

Liver function test – within normal limits

Renal function test - within normal limits.

Normal Coagulation profile.

Ultrasound examination showed fetal demise, complete uterine rupture on lower segment fetus along with placenta and cord was seen in Abdominal cavity with empty uterine cavity. Free fluid in abdominal cavity.

The patient underwent Emergency Laprotomy under spinal anesthesia for ruptured uterus. During operation we found approximately 500 ml blood clot the died female neonate was in the abdominal cavity along with placenta. We delivered the baby and placenta completely. There was uterine rupture on the previous Caesarian scar. The edge of the uterine wound was regular with no necrosis. The uterus was well contracted and repaired. 1 Packed Cell Volume and 1 Fresh Frozen Plasma was transfused intraoperatively.

We also performed general condition improvement for several days. Patient was monitored throughout the stay. Finally she was discharge after 5 days.

DISCUSSION

Defination and etiology.

Rupture uterus is defined as the dissolution in the continuity of the uterine wall beyond the period of viability.^[1]

The majority of spontaneous rupture occurs because of weakening of uterine wall by previous operation (eg. Myomectomy, hysterotomy, uteroplasty, LSCS) or an old perforation or manual removal of placenta in the past.^[1]

Obstructive rupture – Overstretching of the lower uterine segment in obstructed labour.^[1]

Non - obstructive rupture - It is more common in multiparity and usually involves fundal area.

Injudicious use of oxytocin drug during labour

Scar rupture- Uterine defects such as weakning of the uterine wall by caesarian section Scar, myomectomy scars.

Incidence of lower segment scar rupture is 0.4-1%.^[1]

Traumatic rupture during pregnancy is rare but may occur from a fall a crushing accident or a blow on the abdomen.

Iatrogenic-Uterus may rupture because of obstetric intervention, especially when the uterus has a scar from previous operation.

Diagnosis

The definite diagnosis of uterine rupture is established when clinicians identify a complete disruption of all uterine layers on imaging or laparotomy. Uterine rupture must be suspected in patients presenting with

- Strong contraction ,patient in severe pain, screaming as it her abdomen ruptured then become anxious, scared, pale, cold, sweating and collapse.
- Fast and shallow breathing.
- Vomiting due to peritoneal stimulation
- Shock, fast and irregular heartrate, dropping blood pressure.
- Loss of uterine contraction.^[2,3]

The symptoms in ruptured uterus are not always characteristic although they may arouse the suspicion that ruptured has occurred.

Typically

- Aute abdominal pain followed by features of shock and intra-abdominal haermorrhage.
- Uterine contour is not clear.
- Easily palpable foetus.
- Absent fetal heart rate
- If the fetus has been expelled from the uterine cavity in to the abdominal cavity, it can be directly palpated under abdominal skin with hard uterus next to it.
- Tenderness on the ruptured part.^[1]
- On auscultation,we could find that fetal heart rate is not detected a few minutes following rupture, especially when is expelled to abdominal cavity.

In this case, patient presented with sudden and severe abdominal pain, abdominal tenderness, muscular defense, no fetal heart rate detected. These findings showed possibility of massive haemorrhage in peritoneum that cause diaphragm irritation and pain. Patient looked alert with high blood pressure and tachycardia showing compensated shock.

Management

The survival of pregnant woman with uterine rupture depends on the swiftness and efficacy in managing hypovolemia and controlling bleeding. It should be noted that hypovolemic shock might not be able to improve before arterial bleeding is controlled, therefore delay in surgery can't be accepted.

The choice of management depends on patient's general condition, type of rupture (Complete, incomplete), site of rupture, bleeding, age parity and doctor's capability.

Uterine rupture management consist of

- Infusing isotonic fluid while preparing laprotomy
- Performing laprotomy to evaluate the baby and placenta.
- Repairing the uterus if uterus conservation is needed and tissue is still viable.
- In patients with extended necrosis and concerning condition perform a hysterectomy
- Giving wide -spectrum Antibiotic.^[3]

To this case we managed the patient by observing vital signs, pain, oxygenation, fluid resuscitation, Blood

transfusion and emergency laparotomy. If not treated immediately it could further cause uterine hypotonia, atony and maternal death due to hypovolemic shock

Prevention

Uterine rupture can be prevented by careful evaluation during Antenatal Care. According to Royal College of Obstetrics & Gynaecologist Antenatal care in women with history of cesarean section should be done 5 times namely at 12 weeks, 18-21 weeks, 21-28 weeks, 32-34 weeks and 36 weeks.^[4]

Careful review by history taking & lower uterine segment thickness would be done by obstetricians.

CONCLUSION

Uterine rupture causes poor maternal and fetal prognosis. Doctors must have high suspicion for uterine rupture in pregnant women presenting with acute and severe abdominal pain. Early diagnosis and prompt treatment is really important in uterine rupture.

Prevention of uterine rupture could be done.

by meticulous antenatal care, especially visiting to obstetrician in order to review maternal & fetal condition and determine mode of delivery.

Keep in mind '3' delays that is the cause of maternal mortality which is delayed in diagnosing, referral & management.

To this particular case, there are delayed referral due to late diagnosis and delayed management as when arrived at our hospital, there has been fetal demise.

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