

Spontaneous Rupture of Unscarred Uterus in Grand Multiparous Women: A Report of 5 Cases

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Abstract: ***Introduction:** Uterine rupture is a catastrophic obstetrical emergency associated with a significant foeto-maternal morbidity and mortality. Many risk factors for uterine rupture have been identified, as well as a wide range of clinical presentations. Objectives: To analyse the predisposing factors and maternal and foetal outcome of unscarred uterine rupture in grand multiparous women. **Methods:** Retrospective analysis of cases of unscarred uterine rupture was conducted at the Department of Obstetrics and Gynaecology, RIMS, Imphal from October 2013 to March 2015. **Results:** Our case series comprised of 5 cases. Out of these all were unbooked cases. Majority of the cases (60%) were para 5-6. Uterine rupture occurred at term in all 5 cases. 4 out of 5 cases had history of manipulation by a traditional dai at home and subsequently were referred to a higher centre where as 1 came to the hospital for retained placenta after home delivery. Out of these, only 2 babies (40%) survived. Maternal mortality was nil. **Conclusion:** Rupture uterus is a high risk category of patients. An unscarred uterus can undergo rupture even without etiological or risk factors. The patients with mismanaged labour, grand multiparous women and obstructed labour must be managed by proper trained personnel at a tertiary care centre to avoid maternal and foetal morbidity and mortality.*

Keywords: ruptured uterus, grand multipara, obstructed labour, hysterectomy, high risk

1. Introduction

Uterine rupture in pregnancy is a rare and often catastrophic with a high incidence of foetal and maternal morbidity. Several factors are known to increase the risk of uterine rupture, but, even in high-risk subgroups, the overall incidence of uterine rupture is low. Risk factors for uterine rupture in an unscarred uterus include grand multiparity, induction with misoprostol or oxytocin, malpresentation or a previous surgical abortion. Here we present case reports of 5 grand multiparous women who had rupture in unscarred uterus.

2. Case Reports

No. 1

A 38 yr old woman G6P5+0+0+5 with 9 months of amenorrhoea with no antenatal check up presented to the hospital with pain abdomen for 1 day. Her LMP was not known and previous all 5 deliveries were conducted at home by a traditional dai. On examination she was haemodynamically stable. On per abdominal examination, distension was present, uterus was 34 weeks size, foetal parts could be felt superficially and on auscultation foetal heart sound could not be localised. On laparotomy, haemoperitonium of 1.5 litres drained, a dead foetus of weight 4 kg found in the abdominal cavity, rupture site being in the left anterolateral region. Rupture was repaired and bilateral tubectomy done under spinal anaesthesia. 4 units of Packed RBC was given. Postoperative period was uneventful.

No. 2

A woman 37 yrs, G10P8+1 with 9 months of amenorrhoea reported to the hospital with pain abdomen with no antenatal checkup. All her children were delivered at home by a traditional dai and she had 1 spontaneous abortion. admission, patient was not haemodynamically stable, per

abdominally foetal parts could be felt superficially, Foetal heart sound was absent. Per vaginally station was high up with absent membranes, cervix 2cm dilated and thick. Emergency laparotomy was done. Intraoperatively 2 litres of haemoperitonium drained, a dead foetus of weight 3 kg found in the abdominal cavity. Rupture involved the lower segment which could not be repaired, subtotal hysterectomy was done. Intraoperatively 2 units of Packed RBC and Postoperatively 4 units of PRBC transfused and patient was discharged on 8th postoperative day.

No. 3

A 37 year old woman, P5+0+1+5 reported to the hospital following a home delivery 2 hours back. She was referred from a district hospital in shock with retained placenta. Delivery was conducted by a traditional dai, with history of precipitate labour and manipulation following delivery due to retention of placenta. Per abdominally uterus was 24 weeks size. Patient shifted to labour table and placenta was removed manually. Per vaginal examination revealed a tear in the posterior fornix extending in to the lower segment. Emergency laparotomy was done. Intraoperatively broad ligament haematoma was present with uterine rupture in the lower segment. Subtotal hysterectomy was done. Intraoperatively 2 units of Packed RBC and Postoperatively 3 units of PRBC was given and the patient was discharged on the 8th postoperative day.

No. 4.

A 33 year old female, G6P5+0+0+5 reported to the hospital being referred for non progress of labour from a district hospital. She was haemodynamically stable, had three antenatal check up with an uneventful antenatal period. Per abdominally uterus was 36 weeks size, foetal heart sound was present 100 bpm, foetal parts could be palpated easily. On per vaginal examination head was high up, cervix was 2cm dilated, soft, membranes absent, bleeding present. Emergency laparotomy was done under general anaesthesia.

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Intraoperatively 1 litre of haemoperitonium drained, a live foetus of weight 3.5 kg found in the abdominal cavity, rupture present in the lower segment. Subtotal hysterectomy was done, postoperatively 4 units of Packed RBC transfused. Patient was discharged on 7 th post operative day.

No 5.

A 40 year old woman G8P7+0+0+7 reported to the hospital with 9 months of amenorrhoea with pain abdomen for last 8 hours. She was attended by a traditional birth attendant at home. In this pregnancy she had no antenatal check up and all her children were delivered at home by a traditional dai. She was haemodynamically stable. On per abdominal examination, uterus was 34 wks size, foetal parts could be easily palpated, foetal heart sound was absent. Per vaginal examination revealed cervical dilatation of 4 cm, head high up with active bleeding. Emergency laparotomy was done, a dead foetus of 3.4 kg found in abdominal cavity with rupture of the right lateral portion of lower segment of uterus. Subtotal hysterectomy was done, 5 units of packed RBC transfused, patient was discharged on 9th postoperative day.

3. Discussion

Uterine rupture is one of the most important obstetric emergencies, threatening the lives of both mother and foetus. There are two types of rupture: 1) complete, where the whole thickness of the uterine wall is involved, usually occurring in an unscarred uterus; and 2) incomplete, where the visceral peritoneum remains intact, as seen in scar dehiscence. The most common presentation is intrapartum, but rupture can be diagnosed ante- or postpartum. Intrapartum events are usually detected after a sudden increase in maternal pulse rate and a decrease in blood pressure together with vaginal bleeding and abdominal pain followed by foetal bradycardia.¹ Factors that can predispose to uterine rupture are multiparity, advanced maternal age, a scarred uterus, a big foetus, malpresentation, a contracted pelvis, the misuse of oxytocic drugs, obstetrical maneuvers like external cephalic or internal podalic version, instrumental deliveries.² Ryadh E reported a case of rupture in an unscarred uterus after induced labour with 25 micrograms misoprostol vaginally.³ The commonest cause described has been obstructed labour with the patient presenting with classical signs and symptoms. The high incidence in developing countries is attributed to no access to antenatal care, inadequate provision of health services and lower socioeconomic status. The most common risk factor in

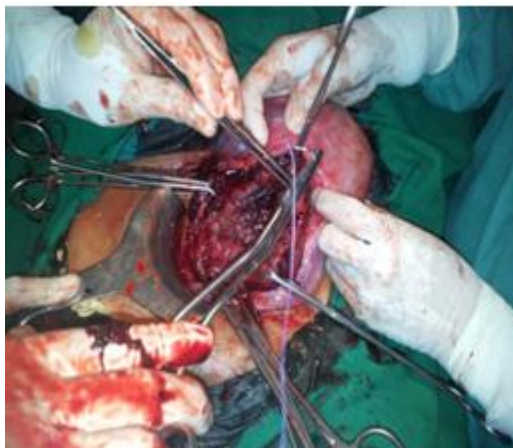
the developed world is previous uterine surgery especially cesarean section. Management of uterine rupture depends upon the type, location and extent of the rupture as well as hemodynamic status of the patient. Ideally repair should be combined with bilateral tubal ligation to reduce the risk of recurrent rupture.⁴ But in our cases, repair was possible only in 1 case, which was combined with BLTL. Rest 4 cases required subtotal hysterectomy. In our cases, the percentage of perinatal mortality was 60% whereas maternal mortality was nil probably because of the brisk management.

4. Conclusion

Rupture uterus is a high risk category of patients. An unscarred uterus can undergo rupture even without etiological or risk factors. The patients with mismanaged labour, grand multiparas and obstructed prolonged labour must be managed by proper trained personnel and in tertiary care centre in order to avoid the morbidity or mortality. Early diagnosis based on awareness about signs and symptoms, high index of suspicion based on history, good anaesthetic care, well equipped ICU, blood bank and NICU and availability of an experienced surgeon on floor, proper antenatal care and hospital deliveries can help in decreasing the maternal and perinatal morbidity and mortality to a large extent.

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