

# A case report of spontaneous rupture in unscarred uterus

## Abstract

**Background:** Uterine rupture is a life-threatening obstetrical complication whose incidence has been increasing. Case: 27 years old patient, gravida two, para one, at 39w3d, referred from a District Hospital severely ill, Glasgow Coma Scale 10/15, BP: 70/42, Pulse: 134, Sat: 85% on room air and HB: 3,2g/dl. Ultrasound showed Free fluid in abdominal cavity, uterine rupture, fetus out of the uterine cavity, no fetal heart activity seen. The patient was transferred to the theatre, delivered stillborn male baby, weighing 3221gr. There is a fundal uterine rupture that was extended until both uterine cornu. Total Abdominal Hysterectomy was undertaken by Richardson Technique and the patient was discharged seven days later. Conclusion: Spontaneous uterine rupture is rare in the unscarred uterus. However, can happen any time and in any trimester.

**Keywords:** abruptio, uterine rupture, unscarred uterus, hysterectomy, trimester

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**Abbreviations:** IUFD, intrauterine fetal death; SFH, symphysis–fundal height; BP, blood pressure; ICU, intensive care unit; PNC, postnatal care; TOLAC: trial of labour after cesarean delivery

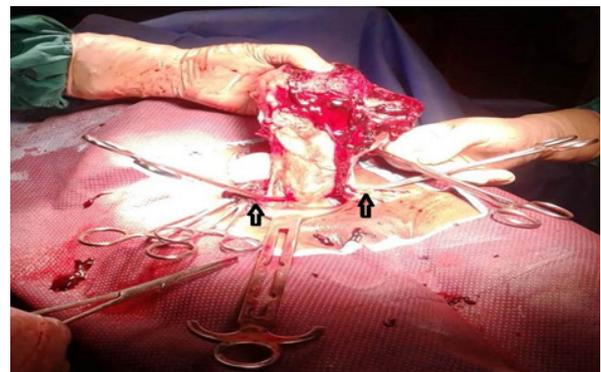
## Background

Uterine rupture is a life-threatening obstetrical complication which incidence has been increasing. this condition usually occurs in the setting of the trial of labour after cesarean delivery, in patients with a history of trauma in the third trimester and few reports have described its occurrence in early pregnancy. this rare complication has an incidence of <1% in women with scarred uteri, however, it is extremely rare in the unscarred uterus with a suggested incidence of only 0.006%.<sup>1,2</sup>

## Case presentation

27 years old patient, gravida two, para one, no comorbidities. She had frequent visits at Primary Health Care, and had Normal booking blood; HIV and Syphilis were negative, and positive Rh. She was referred at 39 weeks from a District Hospital with a diagnosis of Placenta Abruptio and Intrauterine Fetal Death (IUFD). On admission, maternity record did not show any evidence of hypertension during pregnancy. According to the relatives, there is no history of trauma, or accidents etc. On physical examination patient was semi-conscious, severely ill, with Glasgow Coma Scale of 10/15, BP: 70/42, Pulse: 134, O2 Sat: 85% on room air and HB of 3,2g/dl. Abdomen on palpation; SFH at 38cm, very tender and fetal parts easily palpable. Itrasonud showed free fluid in the abdominal cavity, uterine rupture, fetus out of the uterine cavity, no fetal heart activity seen. With this diagnosis, the patient was transferred to theatre for an emergency cesarean section. The patient underwent general anaesthesia, Pfannenstiel incision performed, hemoperitoneum about 3 Liters of blood, delivered stillborn male baby, weight: 3221gram. There is a fundal uterine rupture that was prolonged until both uterine horns (FIGURE 1 and 2); also active bleeding noted, so Total Abdominal Hysterectomy by Richardson Technique was performed. The patient was transferred

to ICU for hemodynamic control and monitoring. Received blood, plasma and others medication for three days, after that was transferred to PNC and discharged four days later in stable condition with BP: 132/81, pulse 78, O2 and Sat: 98%, HB of 11.4g/dl.



**Figure 1** Arrows show uterine arteries clamped. Also uterus fundus completely open.



**Figure 2** Uterus fundus completely open.

## Discussion

Uterine rupture consists of an obstetrical emergency that is becoming more frequent in developed countries, perhaps because of increasing cesarean section rates.<sup>3</sup> Although the majority of cases occur in late gestation, mainly during TOLAC, very few reports have described its occurrence in the first and second trimesters of pregnancy, whether in scarred but also (rarely) in unscarred uteri.<sup>4,5</sup> Spontaneous uterine rupture in the second trimester of pregnancy without prior uterine surgery or trauma is rare. Reported cases in the literature suggest underlying etiologies of abnormal placental implantation, congenital uterine abnormalities such as the bicornuate uterus and uterine septum. Occasionally, no underlying cause is found.<sup>6-8</sup>

In this particular case, no risk factors were found, same results found Sun HD et al.,<sup>9</sup> in one case report published in 2012. There are many causes of abdominal pains who was the principal symptom reported by the patient. We can divide in obstetrics and none/obstetrics causes, like gastritis, peptic ulcer, appendicitis or urinary tract infection.<sup>10</sup> Antepartum hemorrhage is caused by different etiologies such as Placenta Previa, Placenta Abruptio, Uterine Rupture, and Vasa Previa with or without velamentous umbilical cord insertion. That is why sonar plays an important role in the early diagnosis and management<sup>11</sup>. Must be performed it is possible by experimented personnel because in the third trimester is more difficult found the myometrial defect. Also is recommended when the patient is stable.

The management of uterine rupture depends first of all of the clinical findings, localization, extension, parity, the expertise of the surgeon and mother condition. When the defect is small, the uterus can be either repaired or hysterectomy can be done,<sup>12</sup> like in this case.

## Conclusion

Spontaneous uterine rupture is rare in the unscarred uterus. However, it can happen any time and in any trimester, the quick diagnosis and management can save both the mother and fetal life.

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## Conflicts of interest

The author declares that he has no conflicts of interest.

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