# CASE REPORT: SPONTANEOUS FUNDAL UTERINE RUPTURE IN A GRAND MULTIPARA BEFORE ONSET OF LABOR

*Balkachew Nigatu[1], MD, Tizita Abraham[1], MD, Geremew Negash[1], MD*

*[1]Department of Obstetrics and Gynecology, St Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia*

## ABSTRACT

Uterine rupture is an obstetric emergency and which is associated with high maternal and fetal morbidity and mortality. It commonly occurs in uterus with one or more previous scar but is rare in unscarred uterus and especially without labor. The researcher presents a case of fundal uterine rapture in a 35 years old grand multipara who present with abdominal pain of 24 hours' duration. But she has no history of pushing down pain (labor) and no history of trauma. Intraoperative finding showed fundal uterine rupture with a freshly dead baby free in the peritoneal cavity and total abdominal hysterectomy was done.

**KEYWORD**: Uterine fundus, rupture

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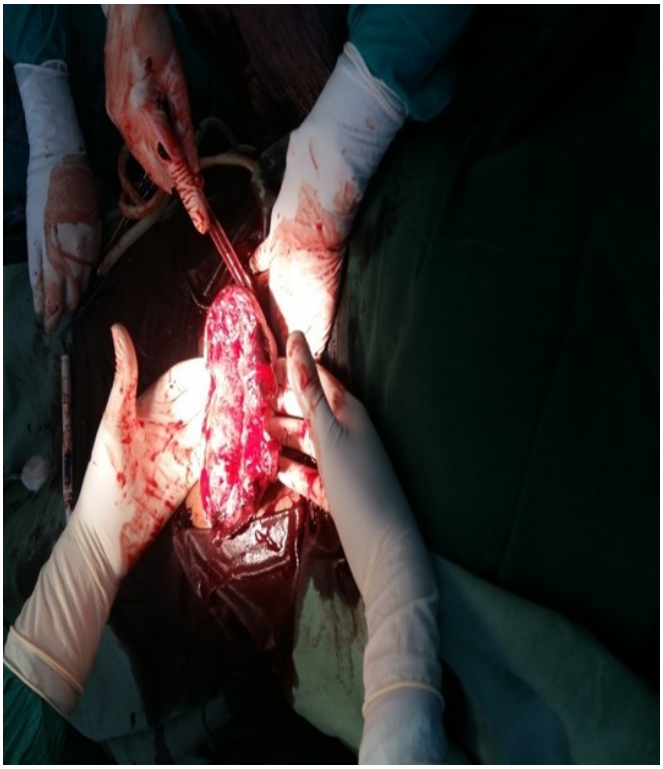
## INTRODUCTION

Uterine rupture is an obstetric catastrophe often complicated with maternal and fetal morbidity and mortality[1, 2, 3]. Uterine rupture is a common complication of pregnancy in developing countries. However, it is very rare in developed countries[4, 5]. Reported incidences averaging less than 0.4 in developed and are between 2.4 to 8.9 per 1000 deliveries in the low resource setting[2]. The major antecedent factors are poverty, ignorance, illiteracy, traditional practices, high parity, a lack of antenatal care, unsupervised delivery, poor infrastructure, delivery outside of a health institution, cephalo-pelvic disproportion, and the injudicious use of oxytocin.

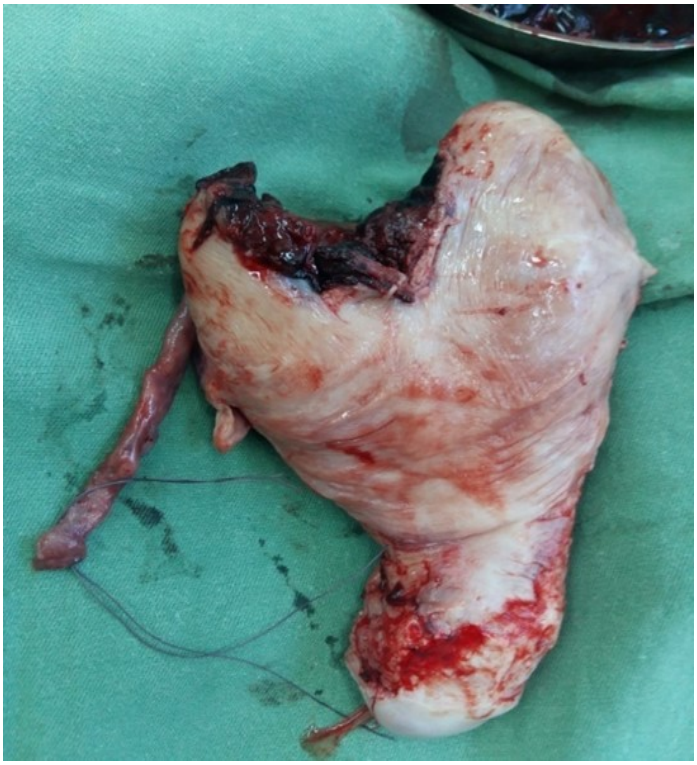
## CASE REPORT

The researcher presents a 35years old G7P6, who does not know her LNMP but claimed to be nine months amenorrhoic present with abdominal pain of 24 hours duration. In association she had nausea and vomiting of the same duration. She had one episodes of syncopal attack. Otherwise she had no pushing down pain (labor), vaginal bleeding, or passage of liquor. No history of fever, chills or rigor. No history of fall down injury or trauma to the abdomen. She had no ANC follow up and came referred from West Shoa, Ormia region close to 150kms away from St Paul's Hospital Millennium Medical College. All previous deliveries were vaginal and at home. The first five are alive but the last one was a still birth due to cause unknown to the family.

On physical evaluation, she was fully conscious and grossly pale. Her pulse rate was 128 beats per minute and blood pressure – 70/40mmHg. She had paper white conjunctivae. Abdominal examination revealed tense and irregularly enlarged abdomen with mild diffuse direct and rebound tenderness, and positive sign of fluid collection. The fetal parts were easily felt just beneath the anterior abdominal wall. The lie and presentation were difficult to ascertain. Fetal heart sound was absent. The cervix was posterior, uneffaced and admits tip of a finger. With the assessment of uterine rupture, she had emergency laparotomy with the intraoperative finding of a freshly dead female fetus weighing 2,300gm, extruded through the fundus of the uterus and floating inside the peritoneal cavity. There was complete disruption of the fundus. Placenta was easily removed with traction from its posterior wall implantation site. Hemoperitoneum was about 3.5L. Total abdominal hysterectomy was performed. She was transfused with two units of whole blood intraoperative and three units postoperative. Then, she had a smooth postoperative recovery period and was discharged home on the seventh day with therapeutic dose of iron. See (Figures 1&2) the intra-operative finding.



**Figures 1: Intra-operative Finding**



**Figures 2: Intra-operative Finding**

## DISCUSSION

Patients with a ruptured uterus tend to be multiparous and advanced maternal age as was the case in this index patient. The high parity is recognized as major risk factor of spontaneous uterine rupture in unscarred uterus[6]. Other etiological factors classically recognized as contributing to a rupture of unscarred uterus are as follow. Those are obstetric maneuvers, malpresentation especially transverse fetal presentation, cephalopelvic disproportion, excessive uterine expressions, abnormal placentation (placenta percreta mainly), trauma due to uterine curettage, and uterine abnormalities [5, 6, & 7]. In some cases, the rupture of gravid uterus has no obvious cause. In their series of 40 uterine ruptures, Schrinsky and Benson found ten spontaneous ruptures without any predisposing factors[8]. The case presented here emphasizes the possibility of uterine rupture, even in women with unscarred uterus and before labor. The most likely predisposing factor in this case was high parity.

Uterine rupture of an unscarred uterus is associated with significant morbidity and mortality. Schrinsky and Benson, in their study, found a maternal and fetal mortality rate of 20.8% and 64.6%, respectively[8].

Maternal manifestations are variable. Uterine rupture should always be strongly considered if constant abdominal pain and signs of intra-abdominal hemorrhage are present. Vaginal bleeding is not a cardinal symptom, as it may be modest, despite major intra-abdominal hemorrhage. However, case reports and series indicate that pain may not be present in sufficient intensity, character, or location to suggest uterine rupture[9-12], and pain may be partially or completely masked by regional analgesia. Furthermore,

although hemorrhage is common, the signs and symptoms of intra-abdominal bleeding in cases of uterine rupture, especially those cases not associated with prior surgery, may be subtle[13]. Other potential clinical manifestations include maternal tachycardia, hypotension ranging from subtle to severe (hypovolemic shock), cessation of uterine contractions, loss of station of the fetal presenting part, uterine tenderness, and change in uterine shape.

**CONCLUSION**

Uterine rupture may occur unnoticed, particularly in unscarred uterus. High index of suspicion should be entertained in this group of patients.

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**CONFLICT OF INTEREST:**

None

Balkachew Nigatu, MD

Department of Obstetrics and Gynecology, St Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

Email: balkewnega@gmail.com

**REFERENCES**


1. Groen GP. Uterine rupture in rural Nigeria. Review of 144 cases. Obst. Gynaecol. 1974; 44(5): 682-7.
2. Ahmed Y, Shehu CE, Nwobodo EI, Ekele BA. Reducing maternal mortality from ruptured uterus--the Sokoto initiative. Afr J Med Sci. 2004; 33(2):135-8.
3. Robert AO, Ekele BA. Rupture uterus: Halting the scourge. Trop J ObstetGynaecol 2002; 19:1 3.
4. K. Ofir, E. Sheiner, A. Levy, M. Katz, and M. Mazor, "Uterine rupture: differences between a scarred and an unscarred uterus," American Journal of Obstetrics and Gynecology, vol.191, no. 2, pp. 425–429, 2004.
5. S. Ahmadi, M. Nouira, M. Bibi, S. Boughuizane, H. Saidi, A. Chaib et al., "Rupture ut´erine sur ut´erussaingravide. `A propos de 28 cas," GynecolObstetFertil, vol. 31, pp. 713–717, 2003.
6. S. Suner, L. Jagminas, J. F. Peipert, and J. Linakis, "Fatal spontaneous rupture of a gravid uterus: case report and literature review of uterine rupture," Journal of Emergency Medicine, vol. 14, no. 2, pp. 181–185, 1996.
7. F. Leung, L. Courtois, Z. Aouar, A. Bourtembourg, A. Eckman, J. Terzibachian et al., "Rupture spontan´ee de l'ut´erus non cicatriciel pendant le travail. `A propos d'un cas et revue de la litt´erature," GynecolObstetFertil, vol. 37, pp. 342–345, 2009.
8. D. C. Schrinsky and R. C. Benson, "Rupture of the pregnant uterus: a review," Obstetrical and Gynecological Survey, vol. 33, no. 4, pp. 217–232, 1978.
9. Dow M, Wax JR, Pinette MG, Blackstone J, Cartin A. Third-trimester uterine rupture without previous cesarean: a case series and review of the literature. American journal of perinatology. 2009 Nov;26(10):739-44.
10. Dane B, Dane C. Maternal death after uterine rupture in an unscarred uterus: a case report. The Journal of emergency medicine. 2009 Nov;37(4):393-5.
11. Chazotte C, Cohen WR. Catastrophic complications of previous cesarean section. American journal of obstetrics and gynecology. 1990 Sep;163(3):738-42.
12. Porreco RP, Clark SL, Belfort MA, Dildy GA, Meyers JA. The changing specter of uterine rupture. American journal of obstetrics and gynecology. 2009 Mar;200(3):269 e1-4.
13. Walsh CA, Baxi LV. Rupture of the primigravid uterus: a review of the literature. Obstetrical & gynecological survey. 2007 May;62(5):327-34.