

## RUPTURE OF A PREVIOUSLY SCARRED UTERUS AT 26 WEEKS OF GESTATION

Teena C. Bannihatti<sup>1</sup>, Ramaraju H. E<sup>2</sup>

### HOW TO CITE THIS ARTICLE:

Teena C. Bannihatti, Ramaraju H. E. "Rupture of a Previously Scarred Uterus at 26 weeks of Gestation". Journal of Evidence Based Medicine and Healthcare; Volume 1, Issue 9, October 31, 2014; Page: 1120-1124.

**ABSTRACT:** Rupture of the gravid uterus is a catastrophic event to both mother and fetus. Majority of cases occur in women with scarred uteri. This is the case report of a 28 year old lady, G2 P 1 L 1 with 26 weeks of gestation with previous cesarean section who presented to us with severe acute abdominal pain, associated with vaginal bleeding since 4 hours. Two years ago she had undergone classical cesarean section owing to a transverse lie. On examination, she was in hemorrhagic shock. She was severely pale. Her pulse rate was 120 beats per minute, blood pressure was 80/40 mm of Hg. On abdominal examination, vertical infra umbilical scar seen, uterine contour could not be made out. Fetal parts were easily felt with no cardiac activity. Vaginal examination revealed bleeding. Rupture uterus complicating pregnancy was diagnosed. She was immediately taken up for emergency Laparotomy, under general anaesthesia. Intra operative findings and further management of the case will be discussed. Though patient presented to us in hemorrhagic shock, timely resuscitation with packed cells and emergency Laparotomy and hysterectomy saved her life.

**KEYWORDS:** Rupture of uterus, Scarred Uterus

**INTRODUCTION:** Rupture of the gravid uterus is a catastrophic event to both mother and fetus.<sup>(1,2)</sup> The incidence of uterine rupture may vary with a reported range of 0.3% to 1.7% for women with a history of a uterine scar, and 0.03% to 0.08% among women with an unscarred uterus.<sup>(3,4)</sup>

Major predisposing factor for rupture uterus is the scarred uterus. Spontaneous rupture of an unscarred uterus during pregnancy is a rare occurrence. The scarred uteri are often secondary to previous Caesarean sections, salpingectomy with cornual resection, deep cornual resection, myomectomy, iatrogenic uterine perforation, or less commonly to placenta increta, congenital anomalies, trauma and sacculation of entrapped retroverted uterus. Other risk factors for increasing the incidence of uterine rupture of a previous cesarean section scar are skill and experience of the surgeon, state of patient at the time of operation, multi parity and the type of cesarean section done. A post-operative complication that may occur as infections is a very important factor for the progress of the next pregnancy and delivery.<sup>(5,6)</sup>

Early diagnosis and timely treatment of uterine rupture is essential for optimal maternal and fetal outcome. Rupture uterus is a potentially devastating complication in obstetrics carrying maternal mortality rate of 4.2% and perinatal morbidity and mortality of 46%.<sup>(7,8)</sup>

Maternal mortality is usually secondary to delayed diagnosis, inadequate blood transfusion and delayed Laparotomy. Awareness of risk factors is the key in early diagnosis of rupture uterus

## ORIGINAL ARTICLE

---

and its proper management. Uterine rupture in second trimester of pregnancy is a rare event. We are presenting the case report of rupture uterus at 26 weeks of gestation.

**CASE REPORT:** A 28 year old lady presented on 12<sup>th</sup> June, 2013 to the obstetric casualty at 26 weeks of gestation with severe acute pain abdomen and vaginal bleeding since 4 hours. She was second gravida with previous cesarean section with one living issue. She was an un-booked case. Two years back patient had undergone emergency cesarean section. Discharge summary of previous delivery showed that classical cesarean section was done, indication being transverse lie. Patient had received 2 units of blood transfusion. Post operatively catheter was removed on day 7 and sutures on day 10.

On examination, patient was pale. She was in hypovolaemic shock with pulse rate 120 beats per minute, blood pressure 80/40 mm of Hg. Respiratory rate was 20 cycles per minute. On abdominal examination, para-umbilical vertical scar extending above the umbilicus was seen, which had healed by primary intention. Abdomen was distended, diffusely tender. Uterine contour could not be made out. Fetal parts were easily felt with no cardiac activity. Per speculum examination showed minimal bleeding through the os. Per vaginal examination revealed closed cervical os, with cervical length of 3 cm. Clinical diagnosis of rupture uterus was made. Bed side scan confirmed uterine rupture. After immediate resuscitative measures, she was taken for emergency Laparotomy under general anesthesia.

Intra-operatively, 800 ml of hemo-peritoneum with clots was present. The amniotic sac with fetus and detached placenta were lying in the peritoneal cavity. Fetus was extracted en-sac. Vertical rupture of uterus was noted involving fundus of the uterus. Total hysterectomy was done. Baby was dead macerated with multiple anomalies. It weighed 900gms. Vertical midline rent of 8cm involving upper segment and fundus of uterus was noted. She was transfused with 4 units of packed cells. Post-operative recovery was uneventful.

**DISCUSSION:** Rupture of uterus is not uncommon following LSCS. But most of these occur in third trimester and during labour. Rupture of uterus in second trimester is a very rare event. Rupture uterus may happen in cases of uterus scarred due to previous myomectomy, in previous Cesarean section scars, or previous operative laparoscopy.<sup>(7)</sup> The incidence of scar rupture in low transverse incision is 0.2 to 1.5% and 4 to 9% in classical scar.<sup>(6)</sup>

Risk factors in our patient were she was an un booked case. Our patient had vertical para-umbilical incision extended above umbilicus. Previous operative notes revealed that classical section was done for transverse lie. She had received 2 units of blood transfusion. First baby was 2 year old. Inter-pregnancy interval was just one and half years which is a matter of concern. Lack of awareness in the patient due to illiteracy, lower socioeconomic status along with all above mentioned risk factors had led to rupture uterus in this pregnancy at 26 weeks. Though patient presented to us in hemorrhagic shock, timely resuscitation with packed cells and emergency laparotomy and hysterectomy saved her life.

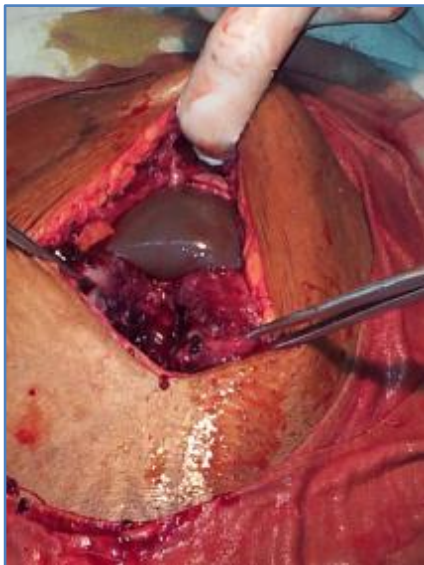
Peng-Hui Wang et al<sup>(9)</sup> reported a case of posterior uterine wall rupture during labour in a previously scarred uterus, but at the site other than scar on uterus. Ishraq Dhaifalah<sup>(10)</sup> has reported a similar case of spontaneous rupture of a previously scarred uterus.

# ORIGINAL ARTICLE

---

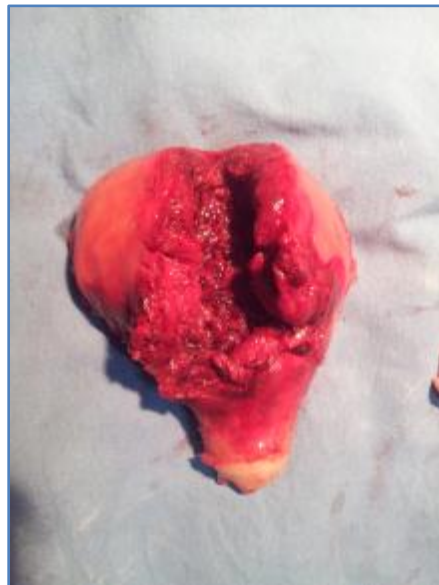
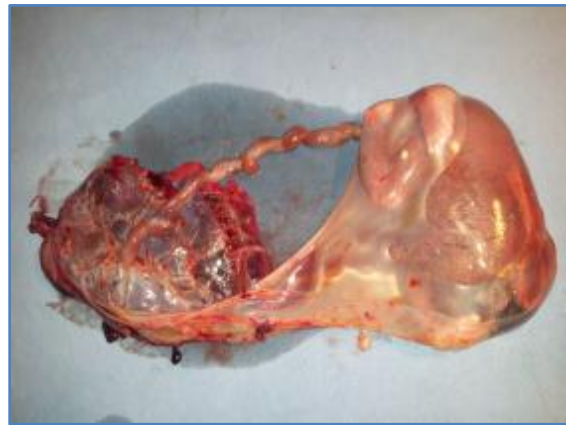
## REFERENCES:

1. Turner MJ. Uterine rupture. *Best Pract Res Clin Obstet Gynaecol.* 2002; 16: 69–79.
2. Kieser KE, Baskett TF. 10-year population-based study of uterine rupture. *Obstet Gynecol.* 2002; 100: 749–753.
3. Leung AS, Leung EK, Paul RH, Uterine rupture after previous cesarean delivery: maternal and fetal consequences. *Am J Obstet Gynecol.* 1993; 169: 945-950
4. PhelanJP; Korst LM, Settles DK, uterine activity patterns in uterine rupture: a case control study. *Obstetrics Gynecol.* 1998: 92; 394-397
5. Leung SA, Farmer RM, Leung EK, Medearis AL, Paul RH. Risk factors associated with uterine rupture during trial of labour after cesarean delivery: A case control study. *Am J J Obstet Gynecol.* 1993; 168: 1358-1363.
6. Cunningham FG, Gant NF, Leveno KJ, et al. *Williams Obstetrics 21<sup>st</sup> ed.* New York, NY: McGraw Hill; 2001; 646-652.
7. (Landon MB, Hauth JC, Leveno KJ, et al; Maternal and perinatal outcomes associated with a trial of labor after prior cesarean delivery. *N Engl J Med.* 2004 Dec 16; 351(25): 2581-9. Epub 2004 Dec 14.
8. Bujold E, Gauthier RJ; Neonatal morbidity associated with uterine rupture: what are the risk factors? *Am J Obstet Gynecol.* 2002 Feb; 186(2): 311-4.
9. Peng-Hui Wang, Chung Yuan, Hsiang-Tai Chao, Ming Jie Yang, Heung-Tat Ng, Posterior uterine wall rupture during labour: Case report. *Human reproduction: Volume 15; issue5; 1999 Agust: 1198-1199.*
10. Ishraq Dhaifalah. Spontaneous rupture of a previously scarred uterus. A case report and an overview of risk factors in yemen republic. *Biomed. Papers Oct 2001: 145(2); 79-80.*



# ORIGINAL ARTICLE

---



# ORIGINAL ARTICLE

---

**AUTHORS:**

1. Teena C. Bannihatti
2. Ramaraju H. E.

**PARTICULARS OF CONTRIBUTORS:**

1. Assistant Professor, Department of Obstetrics and Gynaecology, Vijayanagar Institute of Medical Sciences, Bellary, Karnataka.
2. Assistant Professor, Department of Obstetrics and Gynaecology, Vijayanagar Institute of Medical Sciences, Bellary, Karnataka.

**NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:**

Dr. Teena C. Bannihatti,  
#85, Arunodaya, 12<sup>th</sup> Main Road,  
Shivanagar, Basaveshwara Nagar,  
Bangalore – 560010.  
E-mail: tinabannihatti@gmail.com

Date of Submission: 09/10/2014.  
Date of Peer Review: 10/10/2014.  
Date of Acceptance: 13/10/2014.  
Date of Publishing: 17/10/2014.