

## The Silent Uterine Rupture

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### Abstract

The risk of uterine rupture in a gravid, unscarred uterus is largely unknown. It is a very rare but critical obstetric complication that requires prompt diagnosis and treatment. Many women with ruptured uterus present with hypovolemic shock and maternal and perinatal mortality occur very commonly. Presence of haematuria after Vaginal delivery should raise concerns of bladder rupture. The uterus can be managed conservatively or by hysterectomy. Scarred uteri are usually dealt with precaution, as rupture of the uterus is a known and anticipated complication. Here by presenting a case of A 40-year-old female, Gravida 5 Para 4 Living 4 with previous 4 normal deliveries with BD? BS 31.5 weeks came to casualty with complaint of pain in abdomen. Intrapartum period uneventful, patient delivered spontaneously. Immediately after the delivery, patient was bleeding continuously, which could not be stopped. The patient underwent an urgent exploratory laparotomy. Uterine rupture was identified and obstetric hysterectomy was done.

**Keywords** - Uterine rupture, Gravid uterus, obstetric hysterectomy, labor.

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### I. Introduction-

A uterine rupture is the complete separation of all three layers of the uterus. It most commonly occurs in a gravid uterus during a trial of labor after a previous cesarean delivery. It is crucial for clinicians to stay alert for signs and symptoms of uterine rupture, as it poses significant risks of morbidity and mortality for both the mother and fetus. This activity focuses on the assessment and management of uterine rupture, as well as the role of the interprofessional team in the care of affected patients.

While uterine rupture is typically associated with a pregnant uterus, there have been cases reported in non-pregnant uteri. A uterine rupture can result in the entry of fetal parts, amniotic fluid, or the umbilical cord into the peritoneal cavity or broad ligament. Symptoms may include abdominal pain, vaginal bleeding, changes in contraction patterns, or abnormal fetal heart rate tracings.

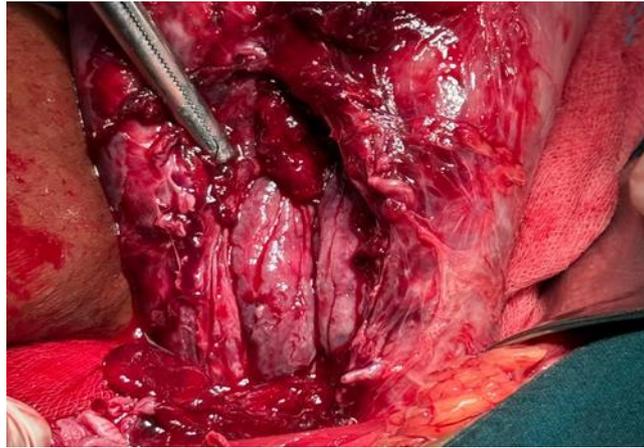
### II. Case Report -

A 40 year old female, Gravida 5 Para 4 Living 4 with previous 4 normal deliveries with BD ? BS 31.5 weeks came to ER with complaint of pain in abdomen. Patient had pulse of 72 beats per minute, blood pressure of 120/70 mmhg , and saturation of 100% on RA , Patient was 4-5 cm dilated having 2 contractions lasting for 10 seconds in 10 minutes and was admitted, all investigations were sent and traced . Patient progressed spontaneously within 3-4 hours and was shifted to labour table Baby delivered in vertex presentation by preterm vaginal delivery. Baby cried immediately after birth.

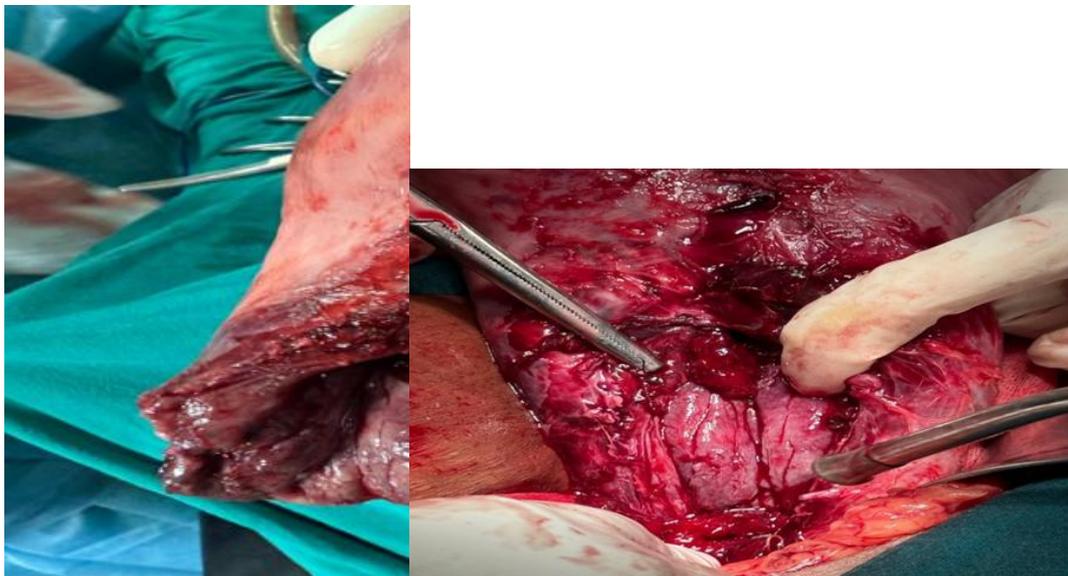
Immediately after the delivery patient was bleeding profusely which did not stop even after multiple interventions such as uterine massage , administration of Uterotonics like oxytocin , Carbetocin, Carbaprost , Misoprostol . Right side forniceal fullness present , Hematoma was felt on right side Patient was tachycardic maintaining pulse of 130 bpm , blood pressure of 80/50 mmhg and saturation of 99% on room air. Patient had one episode of hypovolaemic convulsion.

The patient and her family were counseled about her condition, and consent was obtained for an exploratory laparotomy and, if required, a lifesaving obstetric hysterectomy. Arrangements for surgery were made. Two pint PCV and four pint FFP was issued.

Patient was shifted to OT .Exploratory laparotomy was done. Intraoperatively It was found out that Broad ligament hematoma was formed on right side And there was vertical extension seen extending upto the internal os. Obstetric Hysterectomy was planned in view of uterine rupture with broad ligament hematoma. Two pint PCV and four pint FFP was transfused intraoperatively. Intra-op period was an eventful. Post operative CBC was done , Haemoglobin was 6.5 from pre-ot value of 9.0. Two more pint of PCV was transfused on alternate days. Patient was vitally stable and Hence was discharged.



**Fig 1: Broad Ligament Hematoma On Right Side With Vertical Extension Extending Upto The Internal Os**



**Fig 2: Uterine Rupture With Broad Ligament Hematoma**

### **III. Discussion-**

Uterine rupture during pregnancy is a life-threatening emergency, although it is a rare complication, especially in women with a history of cesarean deliveries. Previous uterine defects, such as those caused by myomectomy or other surgical procedures, are well-established risk factors. Less common risk factors include a short inter-delivery interval, a gestational age over 40 weeks, and a birth weight greater than 4000 g. In developed countries, the rate of uterine rupture in women with prior cesarean sections is reported to be as low as 1%. However, it is extremely rare in women without any history of cesarean section or gynecological surgeries. Other risk factors for rupture in an unscarred uterus include uterine abnormalities, grand multiparity, cephalopelvic disproportion, and uterine trauma, such as from version maneuvers or oxytocin use.

Women with uterine rupture often present with hypovolemic shock, and both maternal and perinatal mortality are common. The presence of hematuria after a vaginal delivery should prompt suspicion of a bladder rupture. Management of uterine rupture can be conservative or require hysterectomy. Scarred uteri are typically managed with caution, as rupture is a known and anticipated complication, as demonstrated in studies by Revicky et al. and Kumba et al.

Uterine rupture in an unscarred uterus, particularly in women with no prior surgeries, is extremely rare and can be difficult to diagnose. Our patient's case was unusual, as she had a history of four uncomplicated spontaneous vaginal deliveries and no previous gynecological surgeries that would increase her risk. The incidence of uterine rupture in such women is estimated to be between 1 in 8000 and 1 in 15,000 deliveries.

In the postpartum period, the patient experienced a sudden, uncontrollable gush of blood despite multiple interventions, leading to hypovolemic shock and convulsions. This necessitated an immediate decision for surgery. At the time, uterine rupture was not suspected, and it was only diagnosed after the abdomen was

surgically entered. rupture extended vertically up to the internal os, ultimately requiring an obstetric hysterectomy.

#### **IV. Conclusion:**

This case underscores the fact that uterine rupture can occur without clear symptoms during pregnancy. Therefore, maintaining a high level of suspicion and utilizing appropriate imaging are essential for accurate diagnosis. From this case, it is evident that effective intrapartum management and prompt interventions were critical in saving the patient's life.

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