Case Report

Rupture Uterus: Carelessness or Negligence?

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Abstract

Uterus is the most unique reproductive organ in humans. Rupture uterus is a hazardous complication of pregnancy and labour, and carries high risk both to the mother and the foetus. Uterine rupture during third trimester of pregnancy is a rare complication but if there is rupture and not suspect with in time may have fatal out come for the mother, foetus or both. In this modern medical era, prenatal check-up, advanced non invasive diagnostic facilities and subsequent treatment does not produce such life threatening complication. Rupture uterus cases are observed due to either carelessness of the patient or negligence of the doctor. Three cases of rupture uterus are discussed in this paper of full term pregnancy, had complete antenatal visits with all investigations including ultrasonography and attended the hospital well in time before death. Most cases of rupture uterus are preventable with good ante-natal and intra-partum care, and proper identification of high-risk cases.

Key Words: Ruptured Uterus, Foetal death, Intra-abdominal bleeding

Introduction:

The uterus is an amazing part of every woman's body. It is the most unique reproductive organ in humans. It is the part of a woman's body that creates an environment where an embryo can grow. Rupture uterus is a hazardous complication of pregnancy and labour, and carries high risk both to the mother and the foetus. Although its incidence is still higher in developing country as compared to the developed countries, there has been a definite decline in the resulting morbidity and mortality. This can be attributed to improved antenatal and intrapartum care, better anaesthetic and surgical techniques, availability of higher antibiotics and improved blood transfusion facilities. Rupture uterus in nulliparous patients is generally associated with mullerian anomalies. Injudicious use of oxytocin, use of prostaglandin for induction of abortion or labor, forcible external version under general anesthesia and fall or blow on the abdomen are known to increase the risk of uterine rupture during pregnancy.

The initial symptoms and signs of uterine rupture are typically nonspecific; a condition that makes diagnosis difficult, which sometimes delays definitive therapy. From the time of diagnosis to delivery, only few minutes are available before clinically significant fetal morbidity becomes inevitable. Fetal morbidity invariably occurs because of catastrophic hemorrhage, fetal anoxia, or both.

The inconsistent premonitory signs and the short time for instituting therapeutic action make uterine rupture a fearful event. Prognosis depends upon the manner in which labor is managed prior to the accident, type of rupture, morbid pathological changes at the site of the rupture and the effective management. The major causes of death are hemorrhage, shock, sepsis.

CASE NO: 1

History:

A family of three members (husband, wife, male child) was residing in an area of Surat. The female was pregnant and passing her last month of pregnancy. The female had complained about abdominal pain. So, she was immediately shifted to nearest maternity home at 10:30 a.m. The gynaecologist saw the patient and insists to admit in his hospital. The patient was admitted in his hospital. At about 1:30 p.m,
The patient was complaining about severe abdominal pain. The staff nurse of the hospital had attempted to deliver the baby, but she could not. Only head of the baby came out at that moment. The staff had not informed to the gynaecologist instead of repeated request by her husband. On that day at 6:30 p.m gynaecologist came and saw the patient. He had refused to shift the patient to another hospital and also refused for caesarean section. On the same day, at 8:30 p.m both mother and baby were died. Dead body of deceased, aged about 28 years brought to Government Medical College, Surat for post-mortem examination with following findings.

**External Findings:**
- A female wore a sari which was stained with blood at places.
- Marks of pregnancy were present over abdomen.
- Rigor mortis was present all over body.
- Faint post mortem lividity was present over back of body except pressure area.
- Abdomen distended. (Girth at umbilicus: 85 cm.)
- Conjunctiva was pale.
- Injection marks were present over back of wrist, lateral aspect of right forearm and right cubital fossa.

**Internal Findings:**
- Abdominal cavity contains 3.5 litre of blood.
- Foetus and placenta were found in peritoneal cavity.
- Enlarged uterus of size 26.5 cm x 13.0 cm.
- Rupture was present over lower part of uterus of size 13 cm x 7.5 cm x full thickness of wall.
- Foetal head was fixed in pelvic brim.
- Fetus: Male, full term, wt: 3.100 kg
- Viscera preserved for chemical analysis and histopathological examination. After considering all reports and post-mortem findings cause of death was “Shock as a result of haemorrhage due to rupture uterus.”

**CASE NO: 2**
A dead body of female aged about 29 years brought to Forensic Medicine department, SMIMER, Surat on dated 01/08/06 at 12:20 p.m with following findings.

**History:**
A pregnant female, residing in an area of Surat, had abdominal pain on 31/07/06, immediately she was shifted to the nearest maternity home and admitted there. In critical condition doctor decided to shift the patient to SMIMER hospital. She was expired in the casualty department during treatment under suspicious condition.

**External Findings:**
- Clothes were stained with blood.
- Rigor mortis was present all over body.
- Post-mortem lividity was appreciable over back of body except pressure area.

**Internal Findings:**
- Abdominal cavity contains 4.5 litre of blood.
- Uterus was gravid.
- Oblique rupture was present over fundus of uterus of size 18 cm x 3.8 cm x full thickness of wall.
- Fetus: Full term male, Wt: 2809 gm, presenting part was fixed in pelvic brim.
  The cause of death in this case was “Shock as a result of haemorrhage due to rupture uterus.”

**CASE NO: 3**
A female aged about 28 years residing in an area of Surat who was pregnant. She had complained of abdominal pain at 10:00 p.m. Her husband had arranged private vehicle to shift his wife to casualty department of SMIMER hospital but during transportation she was dead. The post-mortem examination revealed following findings.

**External Findings:**
- Striae were present over lower abdomen and upper portion of thigh.
- Abdomen was distended.
- Faint post-mortem lividity present over back of body except pressure area.
- Conjunctiva pale.

**Internal Findings:**
- Abdominal cavity contains 3 litre of blood.
- Uterus was gravid.
- Oblique rupture was found from fundus of size 8 cm x 5 cm x full thickness.
- Fetus: Full term male, Wt: 2600 gm
  The cause of death was “Shock as a result of haemorrhage due to rupture of uterus.”

**Discussion:**
Rupture uterus is a life threatening obstetric problem. Rupture in primigravida in first or second trimester generally occurs in congenitally malformed uterus like unicoruate or bicornuate uterus with or without rudimentary communicating-noncommunicating horn. [3] Rupture of uterus occurs because of inability of malformed uterus to expand as a normal uterus. [4]

The rupture in rudimentary horn is likely to occur in late first trimester or even in second trimester. Rarely pregnancy can go on till late second trimester before rupture. The
haemorrhage occurring because of rupture is massive and can be life threatening, unless diagnosed and treated promptly. [5]

Obstructed labour due to cephalo-pelvic disproportion and malpresentations, continued to be a major causative factor of rupture uterus. Sinha and Roy also recently reported an incidence of 24.4% scar rupture, while Kulkarni and Kendre reported 56.12% scar rupture in their series on rupture uterus in rural India. There are increasing number of cases of scar rupture is due to an increasing use of caesarean section in place of difficult vaginal delivery. Although better alternatives in terms of fetal outcome and decreased maternal morbidity, improved these caesarean sections should not be accompanied by an increase in the rate of scar rupture.

All patients with previous caesarean scars should be made aware of the importance of ante-natal care in all subsequent pregnancies. They also require careful pre-natal supervision, proper selection of cases for vaginal delivery, early hospital admission, and close supervision in labour. [6, 7]

The high risk mother with contracted pelvic, previous history of caesarean section, hysterotomy or myomectomy, uncorrected transverse lie, grand multiparity are likely to rupture should have mandatory hospital delivery. Ultrasonography (USG) may be helpful in diagnosing such anomalies before rupture, which will help in decreasing the morbidity and mortality associated with rapid and massive hemoperitoneum occurring because of rupture of uterus. [8] Treatment usually involved is removal of ruptured horn.

As it leaves a scar on upper part of the uterus, it is important to avoid pregnancy for at least one year by barrier or hormonal contraceptives. In addition, future pregnancy requires proper monitoring, early hospitalization, and elective caesarean section at term. As to the choice of surgery, conservation of the uterus by re-suturing the rent should be attempted wherever possible. With availability of higher antibiotics and better non-steroidal anti-inflammatory drugs, good results have been obtained. However, in cases with severe haemorrhage and shock requiring Hysterectomy, operative time and exposure to anaesthesia are vital factors, and a quick sub total hysterectomy should be resorted too. [4]

**Conclusion:**

Most cases of rupture uterus are preventable with good ante-natal and intra-partum care, and proper identification of high-risk cases. High risk cases should have mandatory hospital delivery. Fatal out comes in all cases are either due to mishandling the case or improper/incomplete treatment was provided to the deceased. The treating doctor should keep in the mind such complications especially in the case of previous operation /elderly primi / primi with foeto-pelvic disproportion.

**References:**


Photographs of Case 2A

Photographs of Case 3A