

## RUPTURED UTERUS; AN ONGOING TRAGEDY OF MOTHERHOOD

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**ABSTRACT... Objective:** To analyze the risk factors for uterine rupture and to share the 5 years experience of ruptured uterus with other colleagues of the specialty. **Study design:** Case series descriptive study. **Settings:** Gynae /Obstetrics Unit -I Lady Willingdon Hospital Lahore. **Study Duration:** Five years i.e 1st May 2004 to 30th April 2009. **Material and Methods:** Obstetric patients who presented with ruptured uteri. **Results:** Results showed that risk factor for ruptured uteri include cesarean sections (61.11%), grand multiparity (16.6%), Instrumental deliveries (4.44%) and undetected perforation (1.11%). **Conclusion:** Ruptured uterus is a high risk category of patients. The patients with previous scar, grand multiparas, obstructed prolonged labour must be managed by proper trained personnel and in tertiary care centers in order to avoid the morbidity or mortality due to ruptured uterus.

**Key words:** Ruptured uterus, postpartum hemorrhage, previous cesarean scar, grand multiparity and instrumental delivery.

### INTRODUCTION

Having an alive and healthy baby is a beautiful event in a women's life, Healthy mother and a healthy baby is the required aim at the end of pregnancy and labour. But sometimes certain catastrophies happen which lead to morbidity and sometimes even the death of a mother.

Postpartum hemorrhage continues to be a significant contributor worldwide to the related deaths of mothers each year accounting for 30% of total number<sup>1</sup>.

Many of these occur in locations where medical services are limited and particularly where operative intervention and blood transfusion services are not readily available. Even in the developed countries delay in initiating the management of postpartum haemorrhage may lead to maternal morbidity and mortality<sup>2,3</sup>.

Genital tract trauma is a well recognized cause of postpartum hemorrhage (PPH) and even the death of a mother. Ruptured uterus is one of such injuries which may

range from simple dehiscence of a previous cesarean scar to very dangerous emulsions of uterine vessels, broad ligament and walls of uterus leading to an alarming concealed or revealed hemorrhage<sup>4</sup>.

Taking into consideration the importance of such an important happening a study was carried out at Lady Willingdon Hospital during a period of five years starting from 1st may 2004 to 30th April 2009.

Lady Willingdon Hospital is a 350 bedded teaching hospital affiliated with King Edward Medical University. It is one of the ancient and excellent Centre of Obstetrics and Gynaecology where about 13000-14000 deliveries occur per year. This hospital drains mostly the peripheral

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hospitals like Gujranwala, Hafizabad, Muridke, Sheikhupura and Kamonki.

During this study the risk factors and causes of uterine rupture were noticed.

### AIMS AND OBJECTIVES

1. To analyze the risk factors leading to uterine rupture.
2. To share the experience of ruptured uterus with other colleagues of specialty.
3. To give suggestions for prevention of such a serious happening.

### METHODS

It is a descriptive study which was carried out at Gynae Unit-I of Lady Willindon Hospital, Lahore from 1st May 2004 to 30th April 2009. The data was collected with the help of Proforma.

### RESULTS

A total of 150 cases were seen during this period who presented with uterine rupture. Mostly the patients were collapsed and in shocked state on arrival at hospital 98% were un-booked, referred from peripheral regions.

Mostly the patients were multiparas had previous cesarean scar in uterus, Undetected perforations in some pervious Dilatation and Curettage, dai handling, prolonged obstructed labour and instrumental deliveries. The data collected was as:

Causes	No. of cases	%age
Previous cesarean scan in uterus	110	61.11%
Grand multiparity managed by Dias	30	16.66%
Instrumental deliveries	08	4.44%
Un detected previous perforations in uterus or myomectomy scar in uterus	02	1.11%

### DISCUSSION

Uterine rupture is a serious happening in a woman's life. It may not only endanger her life but may even affect her future fertility status as well. Sometimes other morbidities like respiratory and renal failure due to excessive blood loss, prolonged anaesthesia, especially in patients with already compromised kidney or respiratory functions can also occur.

Now a days cesarean section rate is increasing tremendously day by day especially in private setup of hospitals and often these sections are performed in peripheral regions of our country usually by untrained personnel and general surgeons who do not bother about the site, size and shape of incision in uterus they usually give high up incision in uterus and sometimes even the inverted T or the classical cesarean scar, putting these patients at increased risk of rupture of uterus in next pregnancy.

The cases who presented with uterine rupture and previous cesarean scar were about 61.11% Mostly these were the cases who were delivered by the dais, traditional birth attendants and even the doctors in an attempt to deliver them vaginally. Although the patients with one previous section scars can safely be delivered vaginally but the proper fetomaternal monitoring, maternal pelvic assessment, scar thickness, size of baby and other parameters required for safe vaginal births must be fulfilled. These patients must be delivered in tertiary care centers by experienced obstetricians and with all the facilities for emergency cesarean sections like anaesthetist, blood transfusion and operation theatre set up.

The usual site of injury was rupture of previous cesarean scars, very often involvement of urinary bladder, broad ligament rupture and hematomas were also seen associated with scar dehiscence In some of the cases classical incision was also seen in upper uterine segment. Few patients were those who did not have any alive baby previously and rupture from classical scar even at 30-31 weeks of gestations.

Bladder injury was also noticed in 50-60% of such cases.

Grand Multiparas (>5 births) were seen to be another risk factor for the ruptured uteri. They continue to be a high risk obstetrical factor which require skilled obstetrical care before, during and even after the birth process. The incidence of uterine rupture is higher in grand multiparas as compared to primiparas<sup>5</sup>.

Various underlying risk factors place these patients at increase risk of ruptured uterus and its related morbidity and mortality.

These patients are usually poor, uneducated and belong to a poor socio-economical class. Risk factor evaluation shows an association of increasing maternal age, lack of antenatal care, mismanagement of labour by Dais and operative or instrumental delivery by untrained personnels.

With increasing age and multiple births changes in the muscle and connective tissue occur in the uterus, similarly divarication of recti also occur in such patients which lead to pendulous belly. The weakened recti and uterine muscles along with pendulous belly lead to malpresentation and abnormal lie of fetus. The inert behavior of uterus and cervix during labour is also very common in such patients which leads to prolonged and obstructed labour. To overcome this problem Dais and Traditional birth attendants use syntocinon injudiciously in higher and in appropriate doses. So all these factors contribute to ruptured uteri in Grand multiparas and place their lives at risk.

To avoid such catastrophesis family planning services and health care facilities for pregnant patient must be made up to standard to avoid rupture uteri and its consequences.

Instrumental delivery especially the midcavity and outlet forceps delivery without proper fetomaternal evaluation were also another important causes. An important and interesting case was referred from Gujranwala with large perforation of posterior fornix of vagina and involving the

posterior lip of cervix and posterior lower uterine segment as well. Laparotomy was performed and repair was done. The %age of such deliveries in this study was 4.44%.

Other important cases were undetected previous uterine perforations usually at fundal region. These causes account for 1.11%. The area of perforation becomes weak and gives way during labour in next pregnancy leading to uterine rupture.

An important case presented with two previous sections who presented in collapsed state with dead fetus in utero. On opening up the abdomen the scar was intact but she was bleeding from placental site at fundal region and the baby was still born. There was an old perforation of uterus.

Most of the ruptures were managed according to site, state and extent of injury. Cesarean hysterectomy was done only in grand multiparas and with in those cases extensive and irreparable injury. Where as bilateral uterine artery ligation and repair of injured site was done where possible<sup>6</sup>.

## SUGGESTIONS

Keeping in view the importance of such a serious happening following are few suggestions to reduce this happening:

1. Awareness about the importance of antenatal, intrapartum and post partum care must be created among the people.
2. High risk patients especially those with previous scar, malpresentation must be managed by a competent person in a proper set up.
3. Awareness about management of labour, use of syntocinon, early referral must be taught to TBA's and Dais.
4. The cases with ruptured uteri must be followed up for the previous management during labour and the responsible personnels must be

- properly trained in teaching hospitals.
5. Mass media education of general population about the benefits and importance of antenatal care, hospital delivery is also another important way to reduce this problem.
  6. Formal education made universal without gender discrimination which may provide long term solution to many obstetrical emergencies to help reduce the maternal mortality. Educated men are likely to prefer antenatal care, safer delivery and family planning for their wives.  
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