Case Report
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# Clinical analysis of 40 cases of uterine rupture at Durgapur sub-division hospital, West Bengal: an observation study

## Abstract

40 cases of uterine rupture that occurred at Durgapur sub divisional hospital during 5 years period from January 1995 to December 1999 were analyzed for clinical observations. The incidence was 1:273; 77.5% were spontaneous, 15 were traumatic, and 7.5 % has scar rupture. It was complete in 92.5% cases disproportion was responsible in 40 cases and mal presentation in 27.5% cases. Total hysterectomy was done in 30% cases, subtotal in 27.5% cases and rent repair in 42.5% cases. Overall maternal mortality was 30% of which highest (41.2%) found in rent repair and lowest (16.6%) in total hystechtomy.

**Keywords:** uterine rupture, maternal mortality and morbidity, prenatal mortality, type of surgery

Volume 9 Issue 6 - 2018

SR Chatterjee
Consulting Gynecologist ESI, Durgapur, India

**Correspondence:** SR Chatterjee, MD, Consulting Gynecologist ESI, Durgapur, Ex-Sr. Consulting Gynecologist, SD Hospital, Durgapur, India, Email srchatterjee15@gmail.com

**Received:** February 26, 2017 | **Published:** November 16, 2018

## Introduction

In modern obstetrics, rupture of the uterus at one suggests a badly manage labour. But in sub-divisional hospital like at Durgapur catering to all referring cases, it is not rare but a frequent occurrence. The commonest cause of rupture was prolonged obstructed labour and trauma. Even in this era of jets and rockets, women are brought in this hospital in state of shock from miles away either in a bullock cart or other slow moving vehicles, hours after rupture had set in. Hence, rupture is still a life threatening problem to the medical fraternity particularly the obstructions.

## Material and methods

Present study compromises 40 cases of uterine rupture attained during 5 years period from January 1995 to December 1999 at Durgapur Sub divisional Hospital, West Bengal. The patients were evaluated with special reference to incidence, aetiological factors, and clinical features type off surgery to be undertaken, maternal mortality and its relationship to type of surgery.

## Observations

During the period of study there were 10,920 deliveries, the incidents being 1:273 deliveries majority of the patients were between the ages 25 and 35 years. Average parity was 3.8. Most of the cases (77.5%) had spontaneous rupture. This proportion was the major aetiological factors in 40% of the cases (Table 1). Malpresentations like mentoposterior, persistent occipitoposterior and transverse lie were responsible in 27.5% of the cases. Traumatic rupture were seen in 15% of the cases, either following internal podalic version, injudicious used of oxytocin or forceps extraction. Scare rupture was found in 7.5& of the cases, two were dehiscence of lower segment of scar and one was classical caesarean section scar rupture.

In this study 37 cases (92.5%) had complete rupture only three (7.5%) had incomplete rupture. Transverse tear of bladder was the commonest variety of rupture. Out of 37 cases of complete rupture, 35 were in lower segment and only two had upper segment rupture. Lateral wall tear with cervical extension was present in three cases of incomplete rupture. Most of the cases had typical diagnostic features as described in Table 2.

**Table 1** Aetologywise distribution of cases of uterine rupture

| Aetiology | No of Cases (%) |
|---|---|
| Disproportion | 16(40%) |
| Malpresentations | 11 (27.5%) |
| Traumatic Rupture | 6 (15%) |
| Grand Multiparity | 4 (10%) |
| Scar Rupture | 3 (7.5%) |
| Total | 40 (100%) |

**Table 2** Distribution of cases according to clinical features

| Clinical Features | No of Cases (%) |
|---|---|
| Prolonged Labour | 25 |
| Superficial foetal parts | 12 |
| Loss of uterine contour | 18 |
| Absence of foetal heart sound | 34 |
| Shock | 30 |
| Vaginal Bleeding | 20 |
| Haematuria | 7 |
| Inability to trace cervical rim | 3 |

Suturing of the tear was done in 17 cases. In 15 of them sterilization was done. Total hysterectomy was done in 12 cases where suturing of tear was impossible, tear being extensively ragged and extending into broad ligament on both the sides associated with hematoma. Subtotal; hysterectomy was done in 11 cases (Table 3). Majority of the cases were operated under spinal anesthesia. Only in 2 cases the operation was done in general anesthesia. As shown in Table 3, there were 12 cases (30%) of maternal death. The causes of death were haemorrhage and shock in 8 cases, peritonitis and endotoxic shock in 4 cases.

**Table 3** Distribution of cases according to type of surgery undertaken and maternal death

| Type of surgery | No of cases (%) | No. of maternal deaths (%) |
|---|---|---|
| Total Hysterectomy | 12 | 2(16.7%) |
| Subtotal Hysterectomy | 11 | 3 (27.3%) |
| Rent Repair | 17 | 7 (41.2%) |
| Total | 40 | 12 (30.0%) |

Maternal morbidity was also high. About 60% of the patients had suffered from ill effects of either haemorrhage or sepsis. Two patients developed vesicovaginal fistula. Maternal mortality was highest in cases with rent repair that total hysterectomy and subtotal hysterectomy.

## Discussion

Spontaneous rupture of the uterus occurred in 77.5 % cases in this series and disproportion accounted for 40% of the cases. Similar observation was made by Sinha & Roy[1] and Kulkarni & Kendre,[2] such ruptures are more catastrophic than scare ruptures . The clinical picture varied from non symptoms at all to complete collapse, classical picture was present in about 80% of the cases. Transverse tear on anterior wall with lateral extension was the commonest variety in all cases of spontaneous rupture. Similar observations have been made by previous studies.[1,2] Mortality rate was 30%, highest (41.2&%) following rent repair and lowest (16.7%) following total hysterectomy. All the cases had peritonitis and endotoxic shocks following rent repair. Hence, total hysterectomy should be treatment of choice as has also been observed by Eden et al.[3] Rent repair may be performed only in cases of scare rupture or if the condition of the patient is too poor to withstand hysterectomy or to preserve child bearing function. Total hysterectomy was performed in 12 and subtotal in 11 cases. Although it is advisable to do total hysterectomy than subtotal , here in this study subtotal hysterectomy and rent repair were done in majority of the cases because most cases were already in a state of shock where operating time, blood loss and exposure to anesthesia were vital factors.

## Acknowledgements

The author expresses his sincere thanks to the Superintendent, Durgapur S.D. Hospital for permitting to go through hospital records.

## Conflict of interest

The authors declare that they have no conflict of interest.

## References

1. Sinha J, Roy S. A retrospective study of rupture uterus at Patna Medical College Hospital during the 5 years period 1977–1982. *J Obstet Gynaecol India*. 1986;36:241–245.
2. Kulkarni NP, Kendre BV. Ruptured uterus – experience at a rural medical college. *J Obstet Gynaecol India*. 1990;40:75–79.
3. Eden RD, Parker RT, Gall SA. Rupture of the pregnant uterus; a 53 years review. *Obstet Gynecol*. 1986;68(5):671–674.