RUPTURE OF UTERUS - A FIVE YEAR REVIEW

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SUMMARY

The incidence of Uterine Rupture at The SSG Hospital, Baroda was found to be declining from 1:170 (1973-77) and 1:198 (1978-82) to 1:234 (present series). 80.8% of these patients came as emergency cases and 72.6% were from the rural areas.

Spontaneous rupture occured in 61.7% cases, scar rupture in 26% and traumatic rupture in 12.3%. CPD and malpresentations were the commonest etiological factors. Lower segment ruptures comprised 78.1% of the total.

Rent repair was done in 54.8% and hysterectomy in 45.2% cases. Bladder repair was required in 11% cases. Maternal mortality was 4.1%, septicemia being the chief cause.

INTRODUCTION

In our country, rupture uterus still remains one of the important and most serious complications in obstetrics. The present study was undertaken in the Department of Obstetrics & Gynaecology, SSG Hospital, from September 1983 to August 1988. During this five year period, 73 cases of rupture uterus were encountered amongst 17087 confinements, giving the incidence of 1:234 (0.43%).

TYPE OF ADMISSION

TABLE I

	Urban	Rural	Total	%
Booked	7	7	14	19.2
Emergency	13	46	59	80.8
Total	20	53	73	100
%	27.4	72.6	100	100

The majority of these patients came from the rural areas and as emergency cases.

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AGE

TABLE II

AGE (YRS)	NO. OF PATIENTS	%
UPTO 20	7	9.6
21-25	28	38.3
26-30	30	41.1
ABOVE 30	8	11.0

The age group of 21-30 yrs. showed the maximum number of cases. This is probably due to the fact that this is the age of maximum fertility and hence the number of confinements in this age group is more.

PARITY

The mean parity of the patients was 1.67. The majority were second or third gravida. There were 6 primigravidae.

ETIOLOGY

TABLE III

Causative factors	No. of cases	%
A. Spontaneous	45	61.7
CPD	10	13.7
Malpresentation	14	19.3
Multiparity	13	17.8
Congenital anomalies	7	9.6
Bladder stone	1	1.3
B. Traumatic	9	12.3
Obs. Manoeuvres	7	9.56
Oxytocin misuse	1	1.37
Direct trauma	1	1.37
C. Scar rupture	19	26.0
Previous LSCS	13	17.8
Hysterotomy	3	4.1
Previous rupture ut.	2	2.73
Myomectomy	1	1.37

Malpresentation and previous LSCS were the most common causes. CPD was a contributing factor in four cases of previous LSCS. Transverse lie was the most common malpresentation. Seven cases of hydrocephalus were responsible for a rupture, of which one presented as a case of hanging breech. In a third gravida with a past history of rupture uterus and a hysterotomy, a vesicular mole during the third pregnancy resulted in a upper segment and fundal rupture. In one interesting case, a bladder stone weighing 60 gms and 5 cm by 5 cm in size was responsible for a lower segment rupture in a primigravida. Early detection of the stone and prior removal could have prevented the rupture. It was heartening to note that only one case of pitocin misuse in the periphery was found, even though obstetric manoeuvres carried out in the periphery resulted in a significant number of traumatic ruptures.

SITE AND TYPE OF RUPTURE

TABLE IV

SITE AND TYPE OF RUPTURE	NO OF CASES	%
Upper Segment involving Fundus	6	8.2
Upper segment	10	13.7
Lower segment	57	78.1
Incomplete	7	9.6
Complete	66	90.4
Associated injuries:		
Bladder	8	11.0
Broad ligament haematoma	11	15.1
Colporrhexis	10	13.7
Cervix	6	8.2

In the majority of cases it was the lower segment which ruptured. Most ruptures were complete. Almost all associated injuries were found in lower segment ruptures, except two broad ligament haematomas, which were found in upper segment ruptures.

CLINICAL DIAGNOSIS

In most of the cases typical features of rupture uterus like loss of uterine contour, uterine tenderness, superficially palpable fetal parts and absent FHS were found. Only 8.2% of patients presented with shock.

MANAGEMENT

TABLE V

OPERATIVE PROCEDURE	NO OF CASES	%
Rent repaired	40	54.8
with T.L.	8	11.0
without T.L.	32	43.8
Hysterectomy	33	45.2
sub-total	18	24.7
total	15	20.5
Asso. surgery		
bladder repair	8	11.0
bladder stone removal	1	1.37
decapitation	2	2.73

The type of surgery was decided only at laparotomy depending upon the type and extent of tear, degree of infection if present and parity of patient. In patients who had not completed their family, efforts were taken to conserve the uterus. Decapitation was necessitated in 2 cases of hanging breech. Care was taken to suture the associated cervical and vaginal tears.

POST-OPERATIVE COMPLICATIONS

TABLE VI

Wound sepsis	5	6.84%
VVF	2	2.73%
Paralytic Ileus	1	1.37%
Intestinal obst.	1	1.37%
Psychosis	1	1.37%
	10	13.68%

In all the cases of wound sepsis and gaping, resuturing was done and the wounds healed well afterwards. In the case of intentinal obstructions, a faecal fistula developed later on. All the cases of fistulae were operated upon and satisfactory results were achieved.

MATERNAL MORTALITY

There were three cases of fatal outcome, of which one had hepatic coma following infective hepatitis and two had septicemia as the terminal complication. Thus the mortality was 4.1%. Death occured within 3-5 days.

PERINATAL OUTCOME

TABLE VII

Baby weight	less than 2 kg	2 to 3 kg	more than 3 kg
	9(12.5%)	55(76.4%)	8(11.1%)

Only 2 babies could be saved in cases of incomplete rupture where an early diagnosis and immediate laparotomy was done. Only 11.1% of the babies had a weight of more than 3 kg.

DISCUSSION

The incidence of uterine rupture in the present study is 1:234 births. Varying incidences have been reported throughout the world ranging

from 1:93 (Rendleshort, 1962) to 1:2000 (Fedorkow, 1988).

The mean parity of 1.67 in this study is much lower than that of 3.6 reported by Sinha and Roy (1986) and 4.9 (Gogoi, 1971). Spontaneous rupture was the commonest (61.7%) followed by scar rupture (26%), whereas Kamalajayaram (1988) reported a higher incidence of scar rupture (42.5%) and 38.5% of spontaneous ruptures probably due to an increased incidence of caesarean sections nowadays.

Lower segment rupture was the commonest (78.1%). Similar incidences i.e. 78.2% and 91.45% were reported by Kamalajayaram (1988) and Sinha and Roy (1986) respectively.

Hysterectomy was carried out in 45.2% of cases in our study. Menon (1962) reported the rate as 79.8%, Sinha and Roy (1986) as 62.4% and Kamalajayaram (1988) as 68%, which are all higher than that in our series. Maternal mortality in our series is only 4.1% which is much lower than that of 44.2%, 21.4% and 17.94% reported by Jacob and Bhargava (1973), Kamalajayaram (1988) and Sinha and Roy (1986) respectively.

Perinatal mortality in our series was 97.2% which is comparable to that reported by other authors. Only in cases of incomplete rupture, is it possible to save the babies by an early diagnosis and immediate laparotomy.

There has not been a significant fall in the incidence of uterine rupture inspite of better antenatal and intranatal facilities. This is probably due to ignorance, poverty and wrong beleifs still prevailing amongst a majority of our people, which prevent them from availing of these facilities.

The considerably high incidence of scar rupture in this series could have been avoided by public education and proper antenatal care and timely admission to the hospital.

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