

RUPTURE UTERUS—A 10 YEAR REVIEW

By

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SUMMARY

The incidence of rupture uterus at Government General Hospital during a 10 year period from 1977-1986 was 1:238. There is no decline in the incidence, in the recent years when compared to the previous years. In 1971-1976 it was 1:243 and during 1981-1986 it was 1:219. Caesarean scar rupture occurred in 42.5%; spontaneous in 38.5% and traumatic in 19%. Scar dehiscence was found in 22% of cases, with 19% of live births. Hysterectomy was done in 68% and rent repair in 23% of cases. Maternal mortality was 21.4%.

Introduction

Rupture of the uterus is one of the serious complications arising before or during labour. The incidence of rupture uterus does not show any decline in this hospital though every effort is being made for efficient ante and intrapartum care at P.H.C. and even at sub-center level. Most of the patients reach the hospital in a

moribund state after being badly handled outside. Practically all are brought in a state of haemorrhagic and septic shock.

Material

The present study is a review of 160 cases of rupture uterus in Government General Hospital, Guntur during a 10 year period from 1977 to 1986.

TABLE I
Incidence : 1 : 238

Years	No. of Deliveries	No. of Rupture uterus cases	Incidence of rupture uterus
1971-1976 (5 years)	19,708	81	1:243
1977-1986 (10 years)	38,227	160	1:238
1981-1986 (5 years)	22,183	101	1:219
Total No. of Maternal deaths		1977-1986	457 cases
Deaths due to rupture uterus			34 cases
Percentage of maternal death due to rupture			7.45%

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There is no decline in the incidence of rupture uterus in recent years. 1981-1986 1:219.

14 (8.7%) patients were in the age group of 15-19 years, 97 (60.6%) were between 20-29 years and 49 (30.7%) were between 30-45 years. Average age is 29.6 years.

19% were primis and 81% were multiparous women.

(65%) cases incomplete in 21 (13%) and scar dehiscence in 36 (22%) cases.

Clinical Diagnosis

There was no difficulty of diagnosis of complete rupture of uterus. 65% were

TABLE II
Etiological Factors for Rupture in Detail

		No. of cases	%
I. Spontaneous during labour			
a. C.P.D. (Hydrocephalus 6 cases)		33	
b. Malpresentation		22	67
Transverse	15		38.5
Brow	5		
Face	2		
c. Grand multiparity		7	
II. Traumatic			
a. Forceps	14	30	19
b. IP version	4		
c. Evisceration	1		
d. Craniotomy	1		
e. Oxytocin	10		
III. Uterine scar rupture			
a. Fundus (Previous perforation)	1	68	42.5
b. Upper segment	34		22
c. Lower segment	33		20.5
		160	100

In 42.5% rupture of the uterus was due to previous scar on the uterus. This shows that there are more number of caesarean sections being performed liberally than in previous years. It is interesting to note that there are more number of classical scar ruptures, where the previous operations were performed by non-gynaecological surgeons. Spontaneous rupture during labour was 38.5% and due to trauma it was 19%.

Complete rupture was found in 103

seen with complete rupture. Among these, 3 patients had trial of LSCS scar in whom the scar gave way with escape of the fetus into the peritoneal cavity. 13% were admitted in obstructed labour with vaginal bleeding and shock. Incomplete rupture was suspected and laparotomy confirmed the diagnosis.

In 22% of cases there was scar dehiscence, which was recognised and operated in time in 18% of cases. In rest of the 4% it was noticed at the time of section.

In 2 cases, following I.P. version and evisceration routine exploration of the uterus revealed rent in the lower segment. 2 cases were referred from outside for gross anaemia, 2 days after delivery by forceps and craniotomy. Routine examination revealed rent in the lower segment with distension of abdomen and gross sepsis.

Site of rupture was lower segment in 125 (78.2%) cases; upper segment in 34 (21.2%) cases and in one case (0.6%), there was a rupture at the fundus towards the left. Lower segment rupture was the commonest site, following obstructed labour or traumatic labour.

broad ligament (19%), cervical tears (5%), bladder injury 8% and colporrhexis in 7% of cases.

Management

Once the diagnosis was made, the immediate measures taken were resuscitation of the patients who were all admitted in a state of shock and a laparotomy was performed as early as possible. Almost all the patients had received blood transfusion.

7 patients died within half an hour before anything could be done.

TABLE III
Details of Scar Rupture

Scar rupture		Complete rupture		Dehiscence Live births
Classical scar	34	18	16	15
Lower segment scar	33	13	20	16
	67	31	36	31

Out of 34 cases of classical scar rupture 18 were complete, 16 had dehiscence with 15 live births. Among the 33 cases of lower segment scar rupture, 13 were complete, 20 were scar dehiscence with 16 live births.

Lower Segment Rupture

Transverse anterior rupture was the commonest in the lower segment (70.5). In 7 cases who died before laparotomy, clinically classical scar rupture was diagnosed in 3 cases and lower segment transverse tear was found in 4 cases. In 63 cases (39%) in addition to lower segment injury other sites of injury were recognised at laparotomy.

Other sites of injury were, extension to

The type of surgery was decided at laparotomy. In moribund patients rent repair or a subtotal hysterectomy was done. In others total or subtotal hysterectomy, rent repair with or without tubal ligation was performed. Cervical tears, colporrhexis and bladder injury were repaired. Indwelling catheters were kept in all cases for 48 hours and in cases of bladder injury repair, the catheter was kept for 10-14 days. Broad spectrum antibiotics and I.V. Metronidazole was given in the postoperative period.

In 68% of the cases the uterus was removed as it was inevitable and in 27.25% rent repair was done either because of her parity or poor general condition during surgery.

TABLE IV
Various Operative Procedures

	No. of cases	%
Subtotal hysterectomy	60	37
Total hysterectomy	50	31
Rent repair	19	12
Rent repair + Tubectomy	18	11
LSCS + Tubectomy (Dehiscence discovered at the time of section)	6	4.25
Died before surgery	7	4.75
	160	100.0
<i>Other surgical procedures</i>		
Bladder injury repair	13	
Colporrhexis repair	12	

Out of 126 cases who were discharged, postoperative complications were found in 90 (56.2%) patients. They were postoperative sepsis, U.T.I., V.V.F. and 36 (22.6%) were discharged without any complication.

Maternal Deaths

There were 34 deaths (21.4%) out of 160 cases of rupture uterus. 32 cases (91%) were admitted in a moribund condition.

7 patients died within 30-45 minutes after admission, 2 patients died during surgery and 25 patients died in the postoperative period ranging from 1-7 days.

Haemorrhagic shock was the cause of death in 20 cases anaesthetic complication in 2 post-operative shock in 4, and septicaemia in 8 cases.

There were 31 live births following scar dehiscence. The fetal mortality was 81%.

Discussion

The incidence of rupture uterus in this series is found to be 1:238 births. The

incidence reported by Asha Oumochigui is 1:286, Jyothi Sinha 1:369 and Vimlesh Mathur 1:171, whereas Menon reported it as 1:415.

The incidence of scar rupture is high in our series, (42%) as some of the non-gynaecological surgeons are still practicing primary classical section outside and also there is a higher incidence of lower segment caesarean section, 26.5% of scar rupture and 78% of complete rupture was reported by Jyothi Sinha; 22% of scar dehiscence and 65% of complete rupture was seen in our series.

Transverse tear in the lower segment was the commonest variety (70.5%). Similar observations were made by Jyothi Sinha, Patel and Parikh (1960).

Hysterectomy was done in 68% of our cases. Menon (1962) gave the incidence as 79.8% Oumachigui as 73.3% and Vimlesh Mathur as 65% which is nearer to our results.

Maternal mortality in our series is 21.4% which is higher than the corrected maternal mortality of 10.6% reported by Menon (1962). Vimlesh reported 36%.

Jacob and Bhargava as 44.2%. Perinatal mortality in our series is 81% which is less than that reported by Jyothi Sinha (96.4%).

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