CAESAREAN SCAR RUPTURE

by

SUVARNA RAMASWAMY

and

M. SUJATHA

SUMMARY

Twenty-four cases of caesarean scar dehisence were seen during the twelve month period of December, 1983 to November, 1984. There were 10,440 deliveries and 1500 caesarean sections during the same period. Except for 2 classical scar ruptures the others followed lower segment caesarean section. There were no maternal deaths though the foetal mortality was 50%. There has been a steady increase in the number of caesarean sections over the past 20 years. Hence it is important that a proper antenatal assessment, timely hospitalization and careful selection of a case for vaginal delivery should be done to minimize mishaps.

Introduction

An analysis of 24 cases of scar rupture or dehiscence following previous caesarean section that have occurred during the period of one year is reported. These patients are analysed in respect of age, parity, place of caesarean section and indications for previous caesarean section and present caesarean section and laparotomy.

These 24 cases were grouped into 4 categories:

1. Scar dehiscence detected on routine exploration following successful vaginal delivery: (5 cases) Table I.

2. Scar dehiscence detected at operation (10 cases) Table II.

3. Scar rupture during labour (6 cases) Table III.

4. Rupture of classical caesarean section scar (3 cases) Table IV.

The total number of deliveries during this period was 10,440 and 1500 caesarean sections were performed. The number of repeat caesarean sections were 45.2. Of the 24 cases of scar dehiscence 2 were previous classical caesarean sections, 10 were booked and the rest were unbooked. Seven were diagnosed at laparotomy, 6 were admitted with scar dehiscence and 5 were detected on routine exploration following successful vaginal delivery. Most of them had their previous caesarean section operation at Govt. Maternity Hospital, except 6 operated elsewhere.

In 14 cases the presentation could be

From: Osmania Medical College and Government Maternity Hospital, Hyderabad-A.P.

Accepted for publication on 24-7-85.

TABLE I *Clinical Presentation of Cases in Group-I*

S. No.	Obst. His.	B/UB	Indication for pre. C.S.	Place of previous operation	Mode of delivery	Findings at laparatomy
1.	$G_3P_2L_0$	B	Breech big baby	Suryapet	Spontaneous female alive collapsed	Scar dehiscence 1" bladder intact scar was at higher level
2.	$G_4P_3L_3$	UB	Tr. lie. wound infection	G.M.H.	Outlet forceps female alive	Scar dehiscence 2" bladder edematous and congested
3.	$G_3P_1L_1A_1$	UB	Breech	G.M.H.	Midlow forceps female alive	
4.	$G_2P_1L_0$	UB	Tr. lie. wound infection	Madanpally	Spontaneous male alive	Scar dehiscence 2"
5.	G_2P_1	B	A.P.H.	G.M.H.	Outlet forceps female alive	Gutter like defect scar was higher up

made out, 9 being cepahalic and 5 breech and shoulder presentation and in the rest of the cases foetus was lying free in the peritonial cavity. Antepartum rupture was present in I case. Some of the cases came in a collapsed condition. Out of 24 cases, in 15 rupture took place in the institution while the patients were under observation, while the rest were admitted with an already ruptured scar. The rupture was complete in 15 cases and incomplete in the rest. In 80% of the cases the previous scar was seen high up at the junction of upper uterine segment and the lower uterine segment, confirmed by thickness of musculature of upper uterine segment. In I case, though taken as elective caesarean section, the dehiscence was noted in the inverted T incision at the junction of horizontal and vertical limb of incision. Involvement of bladder was noted in 3 cases. Total hystetectomy was performed in 8 cases, and in rest of the cases suturing with tubal ligation was done. Fortunately there was no maternal mortality though the foetal mortality was 50%.

Discussion

There is a general increase in the number of caesarean section over the years with the ever widening indications. Incidence of repeat caesarean section in 1960 was 7.7%. By 1980 it increased to 30%. The incidence of primary caesarean section increased from 1.75% in 1964 to 14.3% of all deliveries in 1984. In our series, trial vaginal delivery was given in 30% patients in primary health centres and in 35% in teaching institution. In 3 cases there was previous wound infection. The increase in the number of caesarean section may be concomittent with the increase in the population and also with improved facilities for surgery. The improvement in transport has

TABLE II
Group—II

S. No.	Obst. His.	B/UB	Indication for previous C.S.	Place of C.S.	Indication for present C.S.	Findings
1.	$G_2P_1L_1A_0$	B	Dry labour	G.M.H.	Scar tenderness F.D. & dry labour	Scar Dehiscence 1" Shoulder at the incision. (Alive)
2.	$G_2P_1L_1$	B	C.P.D.	G.M.H.	Failed forceps	Entire scar given way with haemotoma of broad ligament. (Asphyxiated—Died)
3.	G_3P_2	UB	?	G.M.H.	Scar dehiscence in 2nd stage	Scar given way in the middle haematoma. (Alive) Extension of incision + colporrhexis at operation bladder intact.
4.	$G_6P_5L_4$	B	F.D.	G.M.H.	Big baby relative C.P.D.	Meconium stained liquor (alive) between layers of Br. Lig.
5.	$G_3P_2L_1$	B	Conjoined twins	G.M.H.	ECS at the onset of labour	Adhesions. Scar dehiscence 1" Haematoma. Alive asphyxiated.
6.	G_2P_1	UB	F.D.	G.M.H.	Scar dehiscence	Whole length of scar gave way. Still born.
7.	$G_2P_1L_1$	B	Obst. labour	G.M.H.	CPD in labour	Scar dehiscence 2" adhesion. Male asphyxiated.
8.	$G_3P_2L_1D_1$	B	?	G.M.H.	Failed trial	Partial dehiscence. Haematoma. Bladder rupture. Alive boby.
9.	$G_2P_1L_1$	UB	?	G.M.H.	F.D. in labour	Scar dehiscence. Alive Female.
10.	$G_4P_2L_2A_1$	B	C.P.D.	G.M.H.	CPD in labour	Scar dehiscence. Alive Female.

TABLE III

Group—III

1. Unbooked	$G_6P_4L_4A_1$	Hand prolapse	G.M.H.	Rupture uterus in hospital	Whole length of scar given way. Rupture of bladder. Still born, fetus and placenta in the peritonial cavity
2. Unbooked	$G_5P_4L_4$	A.P.H.	G.M.H.	Ruptured in hospital	Whole scar gave way. Bladder intact. Still born
3. Unbooked	$G_5P_3L_1A_1$	Obst. labour	G.M.H.	Rupture UT.	Whole length of scar gave way. Bladder rupture dead baby in peritonial cavity
4. Unbooked	$G_3P_2L_1D_1$	Prolonged labour	?	Rupture UT.	Whole length of scar gave way. Bladder intact. Dead baby. Fet. Pl. in peritonial cavity
5. Unbooked	$G_4P_3L_1D_2$	Tr. lie	?	Rupture UT.	Fet. Pl. with Sac in peritonial cavity. Rupture was in the L.S. ? inverted T incision. Bladder intact
6. Unbooked	$G_8P_7L_5$	? Previous + 5 Ft delivery	?	Rupture	Maylords and Sumul scars. Bladder intact. F and P in peritoneal cavity. Colporrhexis. Whole scar gave way.

TABLE IV

Classical Caesarian Section Scar Rupture

1.	UB	G_3P_2	2 Previous C.S.	G.M.H.	Rupture UT.	1. Previous classical scar gave way 2. Deeply asphyxiated. Male 2 Kg. 3. Could not be revived F and D in peritonial cavity
2.	B	G_2P_1	Classical section	Vijaya-wada	Foetal distress	Guttering of classical scar window formation liquor clear Alive 2.9 Kg. female
3.	UB	$G_4P_3L_1D_2$		G.M.H.	?	1. FE and PL with sac in the peritonial cavity 2. Rupture was in the L.S. Bladder intact. ? inverted T incision

made it possible for women from far off areas to seek admission to the institution. In the earlier years these women either had destructive operations or traumatic still birth with an increase in morbidity and mortality.

There is also an awareness among the public to seek early medical aid with the improvement in media propoganda.

These factors might have contributed to a larger number of women with complicated pregnancies to seek institutional deliveries. Consequently there is an increase in the number of operative deliveries.

Clinical observation suggests that under favourable conditions a caesarean section scar heals by formation of new plain muscle fibres with minimal scar tissue so that the scar is strong. But under unfavourable conditions such as wound sepsis, incomplete haemostasis, poor approximation and more tension on sutures more fibrous tissue is formed thereby leading to a weak scar. Histologically it is also proved that in scars which showed no dehiscence there was limited amount of fibrous tissue. There was more fibrous tissue, little hyalinization scanty new blood vessels, and much muscular fragmentation in cases with scar dehiscence.