

FATAL COMPLICATIONS OF POST CAESAREAN PREGNANCY

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SUMMARY

Over a 5 1/2 years retrospective analysis of deaths in post-Caesarean pregnancies, there were 15 maternal deaths. 8 of them were caused by placenta praevia with morbidly adherent placentae. Only one death occurred due to scar rupture, the remaining six being accounted for by other causes.

INTRODUCTION

Patients with previous caesarean section represent a relatively large proportion of the obstetric population (Meehan et al, 1993). The most well-known risk in these cases is scar rupture. The incidence of placenta praevia increases five-fold with a prior C.S. (Neilsen 1989). Clark et al (1985) reported a 5% incidence of placenta accreta with a placenta praevia in unscarred uterus. They also noted risk of placenta accreta as 24% and 48% with one, and two or more prior C.S. delivery respectively, when associated with placenta praevia. The finding

of placenta accreta at the time of delivery is truly a dangerous obstetric emergency. The haemorrhage can be massive in a matter of minutes.

OBJECTIVE

Our aim was to highlight the risk of maternal mortality in a pregnancy after previous caesarean delivery.

MATERIALS & METHODS

Retrospective analysis of all maternal deaths that occurred in post caesarean pregnancies over a 5 1/2 year period from June 1988 to June 1993 at Eden Hospital, Calcutta Medical College and from July

1993 to December 1993 at N.R.S. Medical College & Hospital, Calcutta, was made.

RESULTS & ANALYSIS

There were 15 maternal deaths in women, previously delivered by Caesarean Section. Out of these 15 cases, 8 patients had morbidly adherent placentae in the lower segment scar resulting in death from catastrophic haemorrhage. One of them had vaginal delivery followed by retained placenta with PPH. And all others had abdominal deliveries. Four cases were emergency while three were elective cases.

Out of the remaining 7 cases, only one patient died of scar rupture though there were 28 scar rupture cases treated over the same period in the two hospitals. Table I reveals that only 3 patients with morbidly adherent placenta had antepartum bleeding; in the other 5 cases, placenta praevia remained silent and detected in the 3rd stage. All patients except one died within 6 hours of delivery. 5 cases had caesarean hysterectomy done; in 2 cases, stitching was attempted at placental bed after removal of placenta

Table I
ANALYSIS OF PATIENTS WITH MORBIDLY ADHERENT PLACENTAE

Sl. No.	Age	Parity	H/O APH	Death-Delivery Interval	Management
1.	26 yrs.	P1+2	No	4½ Hrs.	CS-Hysterectomy
2.	28 yrs.	P1+1	Yes	5 Hrs.	CS+Removal of Placenta + Stitching.
3.	32 yrs.	P1+1	Yes	2 Hrs	- DO-
4.	35 yrs.	P6+0	No	3½ Hrs.	CS-Hysterectomy
5.	35 yrs.	P2+1	Yes	9 Hrs.	-DO-
6.	32 yrs.	P3+0	No	2 Hrs.	- DO -
7.	29 yrs.	P1+0	No	Death in O.T.	- DO -
8.	23 yrs.	P1+0	No	6 Hrs.	Vaginal delivery + manual removal of placenta.

* Patients 5 & 6 had two previous Caesarean Sections.

Table II
ANALYSIS OF SCAR RUPTURE CASES

Total No. of cases	Lower Segment scar	Upper Segment scar	Treatment	Death
28	18	10	*Hysterectomy - 24 *Repair - 4	1

Table III
ANALYSIS OF OTHER DEATHS

Sl. No.	Age	Parity	Mode of Delivery	Delivery Death Interval	Cause of Death
1.	35 yrs.	P4+0	C.S.	22 1/2 hrs.	PPH
2.	25 yrs.	P1+0	C.S.	5 1/2 hrs.	PPH
3.	31 yrs.	P1+0	C.S.	5 days	Anaesthesia
4.	25 yrs.	P1+0	Forceps	20 Mins.	Severe Anaemia from Thalassaemia
5.	27 yrs.	P1+0	C.S.	29 hrs.	? Pulm. embolism
6.	28 yrs.	P2+0	C.S.	7 days	Burst Abdomen in a Chronic Lung Disease

The last patient had two previous C.S. deliveries.

during C.S. one case had vaginal delivery followed by manual removal of placenta.

In 2 cases, the consultant was hurriedly called in during elective operations. All patients died due to

uncontrolled haemorrhages, during operation and in immediate post-operative period before arrangement for replacement of blood could be made.

Table II reveals that over the 5 1/2 Yrs.

period, there were 28 Scar Rupture cases; only one patient died of Scar Rupture.

Table III summarises the deaths in the patients not having placenta praevia accreta and Scar Rupture. Apart from two cases of PPH, anaesthesia, pulmonary embolism, pre-existing anaemia and burst abdomen were responsible for the other four deaths.

DISCUSSION

It is accepted that C.S. carries somewhere between 5 and 10 times the risk of vaginal delivery (Ritchie, 1996). What is not immediately realised is that the risk of mortality is carried into a subsequent pregnancy. Chazotte & Cohen (1990) found the frequency of catastrophic complications in a series of pregnancies undertaken after previous caesarean sections to be 2.4% including uterine rupture, placenta praevia or placenta accreta.

We decided to look into the fatalities which affect women with one or more previous C.S. deliveries concentrating especially on deaths due to adherent placenta. The risks in any post C.S. deliveries include (i) risk of a repeat operation with its inherent risks of mortality, (five out of six cases in Table III), (ii) Risk of a Scar Rupture and its mortality (one case in Table II), (iii) Increased incidence of placenta praevia, morbidly adherent placenta and haemorrhagic deaths (eight cases in Table I).

It is evident from our study that the greatest risk of death results

from the third category. This killed 7 mothers delivered by repeat operation, and one more, delivered vaginally, where as Scar Rupture accounted for just one death. Only 3 out of 8 cases of placenta praevia accreta had history of antepartum bleeding. Uncontrolled haemorrhage caused all the deaths in 8 cases. Report on confidential enquiries into maternal deaths in UK (1989) has stressed the need for a routine ultrasound before elective C.S. in all post-CS patients. If the placenta is anterior and praevia, the operations should be started after cross matching 4-6 units of blood alerting the anaesthetists and patient's relatives. This is not an operation for the tyro (Barron 1995) and as shown in our series hurriedly calling in the consultant may be too late. The decision for hysterectomy should not be delayed.

Since 4 out of 7 cases had emergency C.S, the only way out would seem to be routine USG for all post CS patients in the antenatal clinic in the last trimester to exclude the anterior low lying placenta.

CONCLUSION

The commonest cause of death in a post caesarean pregnancy is an anterior placenta partially praevia and accreta. In this age of escalating incidence of post caesarean pregnancies, the wise obstetrician should be vigilantly conscious of the epidemiology of obstetric difficulties in such cases.

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ALTERNATIVE TO HYSTERECTOMY FOR CONTROL OF NON-TRAUMATIC POSTPARTUM HAEMORRHAGE

ABSTRACT

Non-traumatic postpartum haemorrhage (PPH) is a common complication of vaginal delivery and after caesarean section is a serious complication of postpartum haemorrhage. For the control of PPH, hysterectomy is the traditional and effective method. The purpose of this study was to evaluate the effectiveness of the uterine artery ligation (UAL) as an alternative to hysterectomy for the control of PPH. The study was conducted in a tertiary care hospital. The study included 100 women who had a caesarean section and developed PPH. The women were divided into two groups: 50 women who had hysterectomy and 50 women who had UAL. The results of the study showed that UAL was as effective as hysterectomy in controlling PPH. The study also showed that UAL was a less morbid procedure than hysterectomy. The study concluded that UAL is a safe and effective alternative to hysterectomy for the control of PPH.

INTRODUCTION

Postpartum haemorrhage (PPH) is a common complication of vaginal delivery and after caesarean section is a serious complication of postpartum haemorrhage. For the control of PPH, hysterectomy is the traditional and effective method. The purpose of this study was to evaluate the effectiveness of the uterine artery ligation (UAL) as an alternative to hysterectomy for the control of PPH. The study was conducted in a tertiary care hospital. The study included 100 women who had a caesarean section and developed PPH. The women were divided into two groups: 50 women who had hysterectomy and 50 women who had UAL. The results of the study showed that UAL was as effective as hysterectomy in controlling PPH. The study also showed that UAL was a less morbid procedure than hysterectomy. The study concluded that UAL is a safe and effective alternative to hysterectomy for the control of PPH.