Peripartum Hysterectomy

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ABSTRACT

Objective	To find out causes and outcome of peripartum hysterectomy.
Study design	Case series.
Place & Duration of study	Department of Obstetrics and Gynaecology, Liaquat National Hospital Karachi, from January 2011 to December 2011.
Methodology	Retrospective analysis of series of cases of peripartum hysterectomy identified from hospital records was done. The cases were reviewed for the indications, type of operation (total or sub total hysterectomy), maternal characteristics, booking status, labour and mode of delivery, postoperative morbidity, fetal and maternal outcomes.
Results	Total deliveries in 12 month period were 1493, with 9 peripartum hysterectomies. The frequency was 6.0/1000 deliveries. Uterine atony leading to haemorrhage was noted in 3(33.3%) cases and placenta previa type IV in 5(55.5%). There were 2(22%) cases of morbidly adherent placenta, and one each with severe puerperial sepsis leading to infective endometritis and broad ligament haematoma. There were 2 patients who expired while in ICU and 7 were discharged home. Two babies were stillborn.
Conclusions	In spite of performing peripartum hysterectomies, there occur considerable number of maternal deaths. This could be prevented by good antenatal care, active management of labour, early recognition of complications and early referrals.
Key words	Peripartum hysterectomy, Maternal mortality, Complications- labour.

INTRODUCTION:

In Pakistan the maternal mortality ratio (MMR) is around 276/100,000 live births; approximately 1 in 89 women die of maternal causes during her life time.[1] Postpartum haemorrhage is the leading cause (27%) of maternal mortality followed by puerperal sepsis (14%) and eclampsia/ toxaemia of pregnancy (10%).[1] For many years, maternal healthcare services were evaluated by conducting inquiries into maternal deaths. More recently, review of cases of high maternal morbidity, described as 'near miss' has been found to be a useful method for investigating maternal deaths.[2,3] For every maternal death, there are close to 100 women with severe morbidity referred to as maternal near miss.[4,5] The identification and the study of 'near miss' cases help in understanding the underlying features leading to maternal deaths.[6,7]

In Pakistan we have no or limited experience with the use of 'near miss' review as a tool for monitoring the quality of maternity services and for the evaluation of reasons leading to near miss morbidity. Peripartum hysterectomy is usually performed as a last resort for a massive haemorrhage to save the life of a woman therefore it is a well defined "near miss" of massive haemorrhage cases. The purpose of this review was to identify the frequency, indications, booking status of the women and maternal and fetal outcome in all those patients who underwent peripartum hysterectomy.

METHODOLOGY:

This review was undertaken at a private tertiary care hospital of Karachi. A total of 1493 deliveries took

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place between January 2011 to December 2011. There were 736 caesarean sections performed. Peripartum hysterectomy was done on 9 patients. The records of these patients were reviewed for the following data:

Maternal characteristics; age, parity, gestational age at presentation, booked or referred case, history of previous caesarean delivery.

Labour and delivery; elective caesarean section, onset of labour (induced or spontaneous), duration of labour, mode of delivery, in this index pregnancy whether delivered in another hospital or in tertiary care center, perinatal outcome.

Operation data; indication of surgery, blood transfusion, intra and postoperative complications and duration of stay in the hospital postoperatively.

Postoperative febrile morbidity; an elevation of temperature >38^{o} C on two occasions 4 hours apart 24 hours after the surgery.

The protocol for postpartum haemorrhage (PPH) included uterine massage along with 10 units of syntocinon i/v stat and 30 units in Ringer's lactate solution. Insertion of 4 tablet misoprostol in the rectum, intra-myometrium injection of F2 alpha. If bleeding persisted then examination under anaesthesia (EUA) was done and if considered suitable at that time uterine packing done or intra uterine tamponade created with large size (32 F Foley catheter). If no response occurred then laparotomy was performed and condition dealt according to the finding (uterine artery ligation or other surgical options).

RESULTS:

During one year period emergency peripartum hysterectomy was performed in nine cases, giving a frequency of 6.0/1000 deliveries. Table I shows the details of each case at presentation along with the maternal and fetal outcomes. Only 2 (22.2%) cases were booked patients of this hospital while seven were referred from peripheral hospitals of the city.

Previous caesarean deliveries were performed in 55.5% patients, ranging from 1 to 3. Peripartum hysterectomy was performed in all nine cases because of haemorrhage which failed to respond to conservative treatment except in two cases where it was performed due to uterine perforation post D&E, which was done for retained products of conception causing sepsis (case 8) and in another one for broad ligament haematoma (case 5) following caesarean delivery.

There were five patients with type 4 placenta previa

Table I: Details of Cases Managed

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Age (Year)	32	24	33	40	25	34	30	30	19
Parity (n)	3	2	6	4	2	2	4	2	1
Gestational Age At Presentation (Weeks)	26	38	39	24	35	40	34	40	39
Delivered Or Not At Presentation	No	Yes 20 Days	Yes 12 Hrs	Yes 20 Hrs	Yes 24 Hrs	No	No	Yes 20 Days	Yes 12 Hrs
Booked/ Unbooked	UB	B	UB	UB	UB	B	UB	UB	UB
Previous Caesarean Sections (n)	3	0	0	3	2	1	3	0	0
Perinatal Mortality (Full term Still Birth / Alive / Intrauterine Death)	FSB	Alive	Alive	IUD	Alive	Alive	Alive	Alive	Alive

(55.5%). All of them had previous caesarean deliveries except case 3. All of them had PPH following caesarean section. Placenta accreta was present in 2 cases (22.2%) at 26 weeks and 24 weeks gestation. All the patient were of low parity except case 3, who was para 6. Total abdominal hysterectomy was performed in all cases.

Two patients died (case 3 and 8). The cause of death in case 3 was DIC because of massive haemorrhage leading to coagulation failure which did not respond to transfusion of blood and blood products. Case 8 died due to multiorgan failure following severe puerperal sepsis.

Ovaries were conserved in all of the cases except case 9. Her ovaries had necrosis and blackened due to obliteration of their blood supply because of incorrect technique of B-Lynch suture which was applied at the hospital were she had delivered.

All the patients required minimum 4 to 6 units of blood and 10 to 12 units of fresh frozen plasma transfusions. All the patients were kept in intensive care unit for variable period of time except case 8, whose stay was for 3 weeks and she unfortunately expired. All cases were intubated for variable period of time, maximum for a period of 3 weeks. Minor morbidities were fever in two and wound infection in one case. Seven (77.7%) patients were discharged home alive and well. There were 2 still born babies (case 1,4) as they were very premature (26 and 24 weeks gestation) (table II).

DISCUSSION:

Previously maternal mortality was used to assess the quality of obstetric care but there were many flaws in it. A better assessment of obstetric care is by reviewing the 'near miss' cases whenever investigating for maternal deaths. The focus of this study was obstetric causes of severe maternal morbidity because they account for 80% of maternal deaths in developing countries and cost effective remedies are available for them.[8,9]

This study showed that 'near miss' events occurred in sizeable percentage of women as compared to those reported in previous similar reviews.[10,11] Out of the various types of obstetric haemorrhages, postpartum haemorrhage was the major cause of 'near miss' morbidity and maternal death in this study. All the cases of placenta previa had between 1 to 3 previous caesarean sections except for one which previously had vaginal delivery. These findings are also noted in other studies where increasing number of previous caesarean sections were responsible for increasing morbidity due to abnormal placentation.[10,12]

Efforts to reduce morbidity and mortality from haemorrhage due to abnormal placentation should focus on reducing the incidence of primary caesarean sections.

Another important factor which this study reflects is the lack of proper antenatal care which is a major determinant of maternal outcome. Only 2 cases were booked in this study. In a study from Pakistan 'near miss' events occurred in women who were unbooked showing that the community by and large is ignorant of the complications of pregnancy.[13]

The dangerous combination of placenta previa, placenta accrete and uterine scar has been identified by several authors.[14,15] The relative risk for placenta accrete in patients with placenta previa is 35 times higher in those with previous uterine scar than in those with unscarred uterus.[16] Caesarean deliveries

Table II: Cases Detail (n=9)

Peripartum hysterectomy	9	1.2%
Booked	2	22.2%
Unbooked	7	77.7%
Previous caesarean section	5	55.5%
Placenta previa	5	55.5%
Postpartum haemorrhage	7	77.7%
Puerperal sepsis	1	11.1%
DIC	1	11.1%
Mortality	2	22.2%

in patients with placenta previa and previous uterine scar and especially those with placenta accreta should be performed by trained obstetricians with the consent for hysterectomy and associated morbidities.

All cases in this review had total abdominal hysterectomy. The decision whether to do total or subtotal hysterectomy depends on the experience of surgeon and condition of the patient, although the benefit of subtotal hysterectomy appears to be superior to those of total hysterectomy.[17] Total abdominal hysterectomy is recommended in cases where placenta is attached to lower segment as a whole and will need to be removed to stop the bleeding.[18]

Considerable number of maternal deaths can be prevented by good antenatal care, active management of labour, early recognition of complications and early referrals. Community education about advantages of institutional deliveries may save many such emergencies

CONCLUSION:

The number of peripartum hysterectomy was high and haemorrhage was the major cause.

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