ORIGINAL ARTICLE

Postpartum and Emergency Caesarean Hysterectomy

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ABSTRACT

Objective: To study the frequency, indication, maternal and fetal outcome of emergency caesarean hysterectomy and discuss new trends of management of postpartum hysterectomy.
Background: Caesarean hysterectomy is a surgical procedure and is an obstetrical emergency. It is performed for indications like postpartum haemorrhage, uterine rupture, placenta praevia and abruptio placentae. It can be performed after normal delivery, caesarean sections and after instrumental vaginal deliveries.
Study design: It is a retrospective study.
Setting and duration: Nawaz Sharif Social Security hospital, Lahore, Gynaecology department from January, 2009 to December, 2010.
Methodology: Parameter analyzed were frequency, indication, maternal characteristics, maternal and perinatal morbidity and mortality.
Results: The frequency of emergency caesarean hysterectomy over a study period was 0.309%. Most common indication for operation was caesarean section for placenta praevia 38.4%, followed by uterine atony 23.07% and broad ligament haematoma leading to intractable haemorrhage in 15.38%. Out of 13 patients 12 had total abdominal hysterectomy and one subtotal hysterectomy. Most common maternal complication was anaemia 92.30% followed by fever and wound infection. There was no maternal death but four perinatal deaths because of prematurity.
Conclusion: Frequency of emergency caesarean hysterectomy is high in our setup. High parity increase number of caesarean section and abnormal placentation were identified as risk factors for emergency caesarean hysterectomy. Postpartum hysterectomy is a life saving procedure. The maternal outcome greatly depends on timely decision and good clinical judgement because unnecessary delay can cost life and undue haste can cause morbidity.
Key words:- Emergency caesarean hysterectomy, Postpartum haemorrhage, Caesarean section

INTRODUCTION

The usual approach to management of postpartum haemorrhage which is unresponsive to medical treatment is a sequence of surgical procedures of increasing awareness. Obstetric hysterectomy includes both caesarean and postpartum hysterectomy.

In no other gynaecological or obstetrical surgery is the surgeon in as much a dilemma as when deciding to resort to an emergency hysterectomy. On the other hand, it is the last resort to save the life of patient, and on the other hand mother's reproductive capability is sacrificed. Many times it is very difficult decision and requires good clinical judgement. Most of the time operation is carried out when the condition of the patient is too critical to withstand the risk of anaesthesia or surgery. Proper timing and meticulous care may reduce or prevent maternal complications.

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MATERIAL AND METHODS

A retrospective study was carried out in Social Security Hospital, Multan Road, Lahore from January, 2009 to December, 2010. This is a 610 bedded tertiary referral centre from whole Punjab.

All the patients who underwent emergency postpartum hysterectomy were identified from labour ward register, operating room records and intensive care unit record. Medical record sheet of all identified patients were reviewed regarding maternal age, parity, antenatal booking status, indications and type of operation performed. Problems encountered during operation, maternal morbidity and mortality were reviewed.

RESULTS

During the study period there were 4200 deliveries both spontaneous vertex deliveries and caesarean sections. Out of which 13 had obstetrics hysterectomy giving an incidence of 0.309%.

Maternal Characteristics:

Age: Table I showed that 6 (46.15%) were between 25-31 years and 4 (30.76%) were between 32-35 years.

Table I: Distribution of patients according to Age

Maternal Age (years)	=n	%age
19 – 24	3	23.07
25 – 31	6	46.15
32 – 36	4	30.76
Total	13	100

Parity: Six (46.15%) patients were para three or above. Two (15.38%) patients were grand multipara.

Table II: Distribution of Patients According to Parity

Parity	=n	%age
1 – 2	5	38.46
3 – 5	6	46.15
6 – 8	2	15.38
Total	13	100

Gestational Age: Four patients were between 35 – 37 weeks of gestation and 3 patients were premature.

Table III: Duration of Gestation

Duration of Gestation (weeks)	=n	%age
38 – 40	6	46.15
35 – 37	4	30.15
28 – 34 weeks	3	23.07
Total	13	100

Indications for Obstetric Hysterectomies: Table IV show indications for obstetric hysterectomy. The most common indication was placenta praevia. 5 cases (38.46%). Uterine atony in 3 cases (23.07%) and broad ligament haematoma in 2 cases (156.38%).

Table IV: Indications of Caesarean Hysterectomy

Indication for Hysterectomy	=n	%age
Placenta praevia/Accreta	5	38.46
Uterine atony	3	23.07
Broad Ligament haematoma	2	15.38
Abruptio placentae	1	7.69
Uterine inversion	1	7.69
Previous C/S with uterine rupture	1	7.69

Mode of Delivery: In 11 cases of caesarean section with 2 previous 1 caesarean section, 3 previous 2 caesarean section and one previous 3 caesarean section. All were lower segment caesarean section. Among 5 cases of placenta praevia four were placenta praevia type-IV and one was type III placenta praevia.

Table V: Mode of Delivery

Mode	=n	%age
Caesarean section	11	84.6
Vaginal delivery	2	15.38

Antenatal Booking: Out of 13 patients 8 presents in OPD and 5 were admitted through emergency. All these patients belong to poor to middle social class.

Type of Operation: In 12 cases total abdominal hysterectomy was performed and in one subtotal hysterectomy was performed because the general condition of patient was very poor and she had Rh negative blood group and adequate blood was not available to transfuse and prolong the further operation time and bleeding. Postoperatively recovery was usually smooth and in no case relaparotomy was required.

Blood transfusion:

All patients required blood transfusions. Minimum of two and maximum of six units of blood were given.

Maternal and Perinatal Complications:

There were no maternal deaths, although patients develop anaemia, fever and wound infection, requiring sometimes resuturing of wound. There were four perinatal deaths. All were because of prematurity.

Table VI: Distribution of Patients According to Complication

Complication	=n	%age
Anaemia	12	92.30
Shock	1	7.69
Fever	7	53.84
Wound infection	4	30.76
Neonatal deaths	4	30.76
Cardiac arrest	Nil	Nil
Maternal deaths	Nil	Nil

DISCUSSION

The frequency of emergency postpartum or caesarean hysterectomy in this study is 0.309% or 1 in 246 deliveries. It is similar to but lower than frequency reported by Shabnum et al[1] 0.55% and Nusrat et al[2] 0.42%.

Our frequency is high as compared to other studies[3-4] in developed countries because our institution is an important referral centre in Lahore and most cases are referred from outside the Lahore in moribund condition and after complications.

Incidence of postpartum hysterectomy is 0.5/1000 deliveries in Jordan [5]. In Nigeria the incidence is 1 per 348.6 deliveries[6] Ozumba et al from the same country reported an incidence of 1:520 from a teaching hospital [7].

The incidence is markedly low in developed countries due to good antenatal care, improve educational status and good social and nutritional status.

In Bermingham, the incidence reported is 1:1480[8] while in Manchester the figure reported by Thonet et al[9] is 1:15525.

Table VII: Comparative Incidence of obstetric hysterectomy

Author	Incidence
Sturdee and Rushton 1986 [1]	0.07%
Abu-Heija and Jallad 1999 [3]	0.05%
Allahabaidia and Vaidya 1991 [32]	0.19%
Gupta et al 2001 [33]	0.26%
Kanwar et al 2003 [34]	0.32%
Nusrat Nisar and Nisar Ahmad Sohoo [2]	0.42%
Present study	0.309%

In out study 95% patients were from poor social class. Most of these patients were unbooked and referred in detrimental health condition. The situation is different in developed countries.

In our hospital caesarean section rate is 63% which is quite high. So most patients present with repeat caesarean section and high rate of placenta praevia, accrete and uterine atony. In the developed countries placenta accrete is the most common indication (64%) for peripartum hysterectomy[10]. Abnormal placentation has emerged as an important etiologic factor. In Bermingham[8] 50%, Kuwait[11] 64% and in Italy[12] 55% cases of obstetrical hysterectomies were due to placental problems.

Previous caesarean section were present in 8 case (61.5%), higher frequency of postpartum hysterectomy with previous caesarean section was noted by Giwa-Osaga[13] 26% and Thonet et al 50%[9].

There is significant change in indications of obstetric hysterectomy, morbid adherence of placenta, uterine atony and uterine rupture are most frequent indication in most studies in Pakistan[14,15,16].

In developing countries morbid adherence of placenta and uterine atony are the most important evolving reasons for caesarean hysterectomy[17,18].

There was no maternal death in my study. Although high mortality is noted as 12% and 30% in two separate review[19,20].

Mortality can be preventing by deciding operation at appropriate time and low threshold for emergency operation. Delay in performing life saving procedure and experience of obstetrician are the avoidable factors[21]. Sturdee and Rushton had also no maternal deaths in their study[22].

In 12 cases in my study total abdominal hysterectomy was performed, but the incidence of subtotal hysterectomy is increasing to save time and avoid haemorrhage. Subtotal hysterectomy may lead to complete removal of symptoms while bladder and sexual functions may be less affected compared to total abdominal hysterectomy [23].

The usual approach to postpartum haemorrhage is active or expectant management[24]. Patient whose families are not complete medical treatment is used to retain the reproductive function. Oxytocin is used to control postpartum haemorrhage due to uterine atony, but has no role in the cases of uterine rupture, placenta praevia and accreta.

Prostaglandin $PGF_{2}\alpha$ and PGF_{2} were found very effective recently misoprestol, a prostaglandin E_1 analogue is used orally for the prevention of peptic ulcer disease has also been used for the treatment prevention of postpartum haemorrhage[27].

The B lynch suture has also been proved useful in clinical practice for the treatment of atonic uterus[28]. Ligation of internal iliac artery, uterine or ovarian vessels does control haemorrhage in some cases but are usually ineffective in cases of uterine rupture or placenta praevia. It is a fertility saving procedure and may be helpful in selected cases[29,30]. Angiographic embolization has been advocated in selected cases[31].

CONCLUSION

Obstetric hysterectomy is a life saving procedure but decision should be prompt and treatment by an experienced surgeon. Every obstetrician should be trained to perform this procedure. Inspite of this life saving measure, there occur significant numbers of maternal deaths which can be prevented by good maternal care, active management of labour, early recognition of complications, timely referral and easy availabilities of transport and blood transfusion facilities. Community education and advantages of institutional deliveries or delivery by trained traditional birth attendants (TBA's) will save many such emergencies.

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