ORIGINAL ARTICLE

Indications and Complication of Emergency Peripartum Hysterectomy in Bahawal Victoria Hospital Bahawalpur

BUSHRA SHER ZAMAN, JOVERIA SADAF, SHER ZAMAN BHATTI, *NUSRAT SHAMAS*

ABSTRACT

Aim: To determine the incidence, indications, risk factors, and complications of emergency peripartum hysterectomy in Bahawal Victoria Hospital Bahawalpur.

Methods: This is a retrospective study of 24 cases of emergency peripartum hysterectomy performed for various obstetrical indications in one year from January 2007 to December 2007 in Obstetrics and Gynaecology Department Bahawal Victoria Hospital Bahawalpur.

Results: There were 24 cases of emergency peripartum hysterectomy among 8556 deliveries performed during the period of study. So the case incidence was 0.28% i.e.one in 356 deliveries. 7(29.2%) patients were of age group 20 to 30 years and 17(70.8%) were of age group 31 to 43 years. More than 80% (19) women were unbooked while 5(20%) patients were booked. , underlying cause for PPH was low lying placenta in 12 cases out of them 6 patients were having morbidly adherent placentae and along with them placental abruption was the main indication for the emergency peripartum hysterectomy. There were three maternal deaths (12.5%) out of them 2 maternal deaths happened in patients with placental abruption and one in major degree placenta praevia.

Conclusion: The incidence of emergency peripartum hysterectomy was high and majority of patients were unbooked. Placenta praevia has emerged as its primary indication. Booking for antenatal care, anticipation, prompt resuscitation, and early surgical intervention by a skilled surgeon are crucial.

Keywords: Post partum haemorrhage, peripartum hysterectomy, cesarean hysterectomy,

INTRODUCTION

Emergency peripartum hysterectomy (EPH) is a major surgical procedure invariably performed in the setting of life threatening postpartum hemorrhage during or immediately after abdominal and vaginal deliveries[1,2,3,4,5]. Despite advances in medical and surgical fields, post partum hemorrhage still occurs and continues to be the leading cause of maternal morbidity and mortality. Uterine atony still is the leading cause of primary postpartum hemorrhage and the main indications of emergency peripartum hysterectomy. The combination of high parity, cesarean section, prior cesarean delivery and current placenta previa were identified as risk factors, and should alert the obstetrician that an emergency peripartum hysterectomy maybe needed. Although maternal mortality may not always encounter even then morbidity remained high[6].

Postpartum hemorrhage (PPH) is a very common obstetric emergency with high morbidity and mortality rates worldwide. Management strategies include conservative measures (medications, uterine tamponade, and arterial embolization) as well as surgical interventions (arterial ligations, compression sutures, and hysterectomy)[7]. PH is the most dramatic operation in modern obstetrics and is generally performed when all conservative measures have failed to achieve haemostasis in the setting of life threatening hemorrhag[8,9]. The unplanned nature of the surgery and the need for performing it expeditiously, compound matters. Moreover the acute loss of blood renders the patient in a less than ideal condition to undergo emergency surgical 2ntervention. The predominant indications for EPH are placenta previa/accreta and uterine atony and EPH in some of them is unavoidable. However recognizing and assessing patients at risk and appropriate and timely intervention would go a long way in ensuring a better outcome in this otherwise difficult situation.

Peripartum hysterectomy has an incidence ranging from 1-4 per 1000 caesarean sections, significantly greater than that for vaginal delivery. Although it is a life-saving procedure, it is associated with significant morbidity, including massive blood transfusion and intensive care (10-48%), urological injury (8%) and the need for relook laparotomy (8-18%)[10,11].

[1,2]Department of Obstetrics and Gynaecology Unit Civil Hospital, [3]Department of General Surgery, Bahawal Victoria Hospital, [4]Department of Obstetrics and Gynaecology Unit Bahawal Victoria Hospital Bahawalpur

Correspondence: Dr. Bushera Sher Zaman, Associate Professor and Head of Department Obstetrics and Gynaecology Unit Civil Hospital Bahawalpur. Cell: 0300 8680417, Email: drbushrasherzaman@hotmail.com

In our study we have retrospectively analyzed morbidity and mortality associated with emergency peripartum hysterectomy in our busy obstetrical unit of Bahawal Victoria Hospital Bahawalpur. It reflects our national trend in emergency peripartum hysterectomy especially in a low resource area.

PATIENTS AND METHOD

This is a retrospective study of 24 cases of emergency peripartum hysterectomy performed for various obstetrical indications in one year from January 2007 to December 2007 in Obstetrics and Gynaecology Department Bahawal Victoria Hospital Bahawalpur. Emergency peripartum hysterectomy was defined as one performed for hemorrhage unresponsive to other treatment less than 24 h after delivery. Demographic and clinical variables were obtained from the maternal records and analyzed in detail with special emphasis on indication, demographic data (age, parity, booking status etc), perioperative or post operative complications, morbidity and mortality.

RESULTS

There were 24 cases of emergency peripartum hysterectomy among 8556 deliveries performed during the period of study. So the case incidence was 0.28% i.e.one in 356 deliveries. 7(29.2%) patients were of age group 20 to 30 years and 17(70.8%) were of age group 31 to 43 years. Minimum agewas 25 and maximum age was 40 years. Only one patient was primipara and all others were multipara.

Table 1:

Complications	Alive	Expired
Morbidly adherent placenta (placenta accreta or increta 6(25%)		
Bladder injury	1	Nil
Vault haematoma	1	Nil
Smooth recovery	4	nil
Major degree placenta preavia 6(25%)		
ARF	1	Nil
Burst abdomen	1	Nil
Hypovolemic shocki	Nil	1
Smooth recovery	3	Nil
Placental abruption 5(20.8)		
Cardiac arrest	Nil	1
Smooth recovery	3	Nil
DIC	Nil	1
Uterine atony 4(16%)		
Burst abdomen	1	Nil
Smooth recovery	1	Nil
Wound sepsis	1	Nil
Shock	1	Nil
Ruptured uterus 3(12.5%)		
Smooth recovery	3	Nil

More than 80% (19) women were unbooked while 5(20%) patients were booked. As shown by the table no 1, underlying cause for PPH was low lying placenta in 12 cases out of them 6 patients were having morbidly adherent placentae and along with them placental abruption was the main indication for the emergency peripartum hysterectomy.

There were three maternal deaths (12.5%) out of them 2 maternal deaths happened in patients with placental abruption and one in major degree placenta praevia. So in our study placental abruption has the highest mortality rate.

DISCUSSION

Emergency peripartum hysterectomy (EPH) is a major surgical procedure invariably performed in the setting of life threatening postpartum hemorrhage during or immediately after abdominal and vaginal deliveries[1,2,3,4,5]. Despite advances in medical and surgical fields, post partum hemorrhage still occurs and continues to be the leading cause of maternal morbidity and mortality.

The risk factors for post partum hemorrhage include coagulopathies, uterine atony, retained products of conception, precipitate or prolonged labor, fetal macrosomia or multiparity, maternal obesity and previous primary post partum hemorrhage[1–6,8,9]. Traditionally uterine atony was the most common indication for EPH. Recent studies however have indicated a change in the trend towards abnormal placentation[2,6,8,10,12,13].

According to one report the indication for EPH which was uterine atony in 43.45% and placenta previa or accreta in 33.9% cases in 1984[14] changed 9 years later to placenta accreta (45%) and uterine atony in 20% of the cases[15]. Similar findings are reported by others with abnormal placentation as the predominant indication, the incidence ranging from (45 to 73.3%); and uterine atony in (26.6% to 35.6%)[1,2,3,4,5,14,15]. In recent years, abnormal placentation has become a more common indication due to the greater number of pregnant women with previous Cesarean section deliveries[16,17,18,19,20].

Conservative measures to arrest bleeding are initially tried before considering EPH. The measures include uterotonic drugs, uterine or hypogastric artery embolisation, hemostatic sutures, uterine or internal iliac artery ligation[4,5,21,22,23]. Conservative management is of particular importance in patients who are young, have low parity and who are haemodynamically stable[4,5,21,22,23]. However while there are reports of 96% success rate following uterine artery ligation[21] there are others who have achieved success in only 39.4% of these cases.[5] The choice between conservative management and EPH

should be individualized. In situations where conservative treatment is likely to fail or has failed, there should be no further delay in performing EPH as delay leads to increase in blood loss, transfusion requirement, operative time, DIC, and increased possibility of admission to ICU[1,2,3,4,5,6].

According to study of Owolabi MS et al, the rate of peripartum hysterectomies per 1,000 deliveries was 0.85%[12] that is comparable to our study that is .83% and this also comparable to the study conducted by Awan N et al[13].

In a local study conducted in Karachi by Korejo R[16] major indication of peripartum hysterectomy was uterine rupture (58%) and uterine atony (17%) and placenta previa in 10% that is contrary to our study in which placenta previa was the most frequent indication encountered. Similar results seen in study conducted in Nigeria by Obiechina NJ[17] in which uterine atony 11(64.7%, 9 without previa and 2 with previa) and followed by morbid adherent placenta with previa 6 (35.3%, 1 complete placenta accreta and 5 partial adherent placenta) was the most common indication of hysterectomy. The results of our study are comparable to that of Awan N et al[13] in which Indications for EPH were morbid adherence of the placenta (54.8%), placenta praevia (19.4%), uterine atony (12.9%) and uterine rupture or cervical laceration (9.7%) and similer results seen in study by Machado LS et al[18] and Habek D et al[19].

As far as the complications are conserned pyrexia, hypovolemic shock, paralytic ilius and wound infection were the commonest in manay studies.Maternal morbidity was significant in a study by Awan N et al[13] with disseminated intravascular coagulation and urinary tract injury among the most common complications[13] while in a study by Obiechina NJ[17]. The commonest postoperative morbidities were postoperative fever (37.9%), postoperative anemia (24.1%), and wound infection (20.7%). The maternal case fatality rate was 31%. In our study the most common complication was wound infection followed by burst abdomen. Case fatality rate was 12.3% that was comparable to many others[7,9,11,13,24]. Two out of three patients expired due to abruption that also faced DIC and multi organ damage due to hypovolemic shock.

Although no risk assessment system can predict all instances where cesarean delivery will be needed, a significant percentage of the patients who are at high risk for severe hemorrhage and the subsequent need of emergency hysterectomy can be identified before surgery. The preoperative risk factors include previous history of CS, placenta previa and accreta. The presence of preoperative risk factors should facilitate consultation, referral or transfer of patients before surgery to a tertiary care facility. Due to the complexity of the surgery and decision making, the involvement of an experienced obstetrician at an early stage is desirable. When conservative treatment is not feasible or has failed, prompt EPH is performed failing which the delay would contribute to the maternal morbidity and in unfortunate cases mortality.

CONCLUSION

The incidence of emergency peripartum hysterectomy was high and majority of patients were unbooked. Placenta praevia has emerged as its primary indication. Booking for antenatal care, anticipation, prompt resuscitation, and early surgical intervention by a skilled surgeon are crucial.

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