



A DESCRIPTIVE STUDY OF ASSESSMENT OF ETIOLOGY AND CONTRIBUTING RISK FACTORS THAT ARE RESPONSIBLE FOR PERIPARTUM HYSTERECTOMY

Obstetrics & Gynaecology

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ABSTRACT

Introduction: Postpartum hemorrhage (PPH) is a life-threatening condition. Various drugs and surgical techniques have been developed over time, especially to preserve the uterus. However, in some circumstances, an emergency peripartum hysterectomy has to be performed often as the last resort in saving a woman's life. When severe and when all methods fail to control the bleeding, peripartum hysterectomy (PH) is usually performed.¹ It is necessary where conservative measures do not control haemorrhage. It may be considered as a "near-miss" event which is defined as severe life threatening obstetrical complication necessitating urgent intervention in order to prevent likely death of the mother.²

Aims And Objectives: To evaluate risk factors leading to increased maternal morbidity and mortality in patients undergoing peripartum hysterectomy.

Materials And Methods : This was Hospital based Observational Cross Sectional study in the Department of obstetrics and gynaecology, SMS medical college and associated hospitals, Jaipur from march 2021 onwards till sample size was achieved on all patients who underwent peripartum hysterectomy. The sample size was calculated to be 90(4-2017) cases of peripartum hysterectomy.

Conclusion: Peripartum hysterectomy is the most dramatic obstetric surgery performed as a last resort in severe postpartum haemorrhage or at risk of major haemorrhage in case of morbidly adherent placenta (MAP). The indication for peripartum hysterectomy in recent years has changed from uterine atony to morbidly adherent placenta (MAP).

KEYWORDS

Peripartum hysterectomy ,placenta accreta ,post partum haemorrhage

INTRODUCTION

Postpartum hemorrhage (PPH) is a life-threatening condition. Various drugs and surgical techniques have been developed over time, especially to preserve the uterus. However, in some circumstances, an emergency peripartum hysterectomy has to be performed often as the last resort in saving a woman's life. When severe and when all methods fail to control the bleeding, peripartum hysterectomy (PH) is usually performed.¹ It is necessary where conservative measures do not control haemorrhage. It may be considered as a "near-miss" event which is defined as severe life threatening obstetrical complication necessitating urgent intervention in order to prevent likely death of the mother.³

Peripartum hysterectomy is removal of pregnant uterus after 20 weeks gestation at or near time of delivery (performed within 24 hours of a delivery) but within the first 6 weeks postpartum. It is a technically difficult but life saving procedure especially when performed as an emergency². Its complications are 4 times than those of an elective procedure. Intraoperative and postoperative complications are much more than that of gynecological hysterectomy. Its mortality is 5 times greater than an elective procedure².

In 1876, the first cesarean subtotal hysterectomy was carried out successfully, with the result that both the mother and the baby survived.⁴ The reported incidence of peripartum hysterectomy varies from 0.2 to 8 per 1000 deliveries. Available data from high-income settings indicate that hysterectomy is most commonly performed on women between 44 and 54 years.⁵ Population-based data from low- and middle-income countries, although limited, suggest lower prevalence compared with high-income settings.

The decision to perform a peripartum hysterectomy on a young woman, especially with low parity, is very challenging. However, a timely decision can make the difference between life and death. For the woman who survives, peripartum hysterectomy is an event which saved her life.

In the past, the most common indications for emergency peripartum hysterectomy were uterine atony and uterine rupture.⁶ In the developed countries, the preventable indications such as uterine rupture and uterine atony are giving way to the non preventable indications such as abnormal placentation, whereas in the developing countries, these preventable indications are still prevalent.⁷ This is not only because of

improved conservative management of uterine atony and a reduced incidence of uterine rupture due to the extensive use of the lower uterine segment incision in preference to the upper uterine segment incision for caesarean section (CS) but also because of an actual increase in the incidence of the morbidly adherent placenta. A prior cesarean delivery is associated with an increased rate of abnormal placentation, including placenta previa, and placenta accreta in subsequent pregnancies.⁸ In addition, it is hypothesized that uterine scarring, especially with increasing number of previous cesarean deliveries, also increases the risk of peripartum hysterectomy, even in the absence of placenta previa. Abnormal placentation, which refers to both placenta previa and the morbidly adherent placenta, is thought to be increasing because of the rising rate of CS.

Conservative treatment of postpartum hemorrhage includes uterotonics (oxytocin, ergotamine), uterine massage, uterine artery embolization, uterine packing, pelvic vessel ligation, B-Lynch suture, multiple square sutures, and recombinant-activated factor VII.⁹ With active management of the third stage of labor, better antibiotics and use of prostaglandins and oxytocics, various surgical methods for compression of the uterus like B Lynch sutures, internal iliac artery ligation, and Cho's sutures, the incidence of obstetric hysterectomy has reduced.

Several conservative interventions aimed at arresting the massive bleeding are explored before considering EPH as an option. These interventional strategies include uterine massage, uterotonic drugs, uterine or hypogastric artery embolisation, hemostatic sutures, bilateral internal iliac artery ligation, etc.,¹⁰ Although some risk factors for peripartum hysterectomy have been established, including mode of delivery or multiple births. Other risk factors are placenta previa (which is significantly associated with an increased likelihood of placenta accreta), advanced maternal age, twin pregnancy, chorioamnionitis, and puerperal infections. In addition, these studies were conducted in single tertiary care institutions, diminishing their generalizability, and most of these studies did not have a comparison group. It is also established that the risk of EPH increases with the number of previous CS. Other factors that have been associated with EPH include advanced maternal age, multiparity, multiple gestations, and gestational diabetes.¹¹

MATERIALS AND METHODS

Type Of Study- Hospital based Observational study

Study Design- Cross Sectional study

Area Of Study- Department of obstetrics and gynaecology, SMS medical college and associated hospitals, Jaipur

Duration- From march 2021 onwards till sample size was achieved.

Study Universe- All patients were admitted to labour room.

Study Population- All patients who underwent peripartum hysterectomy.

Inclusion Criteria

All the patients undergoing peripartum hysterectomy.

Patients who gave consent to participate in the study

Exclusion Criteria

Patients participating in any other study.

RESULT

Peripartum hysterectomy is the most dramatic obstetric surgery performed as a last resort in severe postpartum haemorrhage or at risk of major haemorrhage in case of morbidly adherent placenta (MAP). The indication for peripartum hysterectomy in recent years has changed from uterine atony to MAP. Women recovering from peripartum hysterectomy events undergo a different and much prolonged recovery process than we initially expected. Effects on physical, mental, and social functioning need to be documented and communicated by the clinical team for these women to receive the long-term care and help they need. Women, family, primary health providers, employers, and insurance providers need to be educated regarding the prolonged recovery process with realistic expectations for the women to receive much needed support. Although saving lives is important, a thorough multi-disciplinary supportive care for much longer duration is required for these women for a successful recovery process. Policy planners, health insurance providers, and health care teams need to join hands in providing holistic care.

Table No-1 Distribution of patients according to Previous C-section.

Previous C-section	No. of patients	Percentage
Zero	12	13.33
One	17	18.89
Two	22	24.44
Three	39	43.33
Total	90	100.00

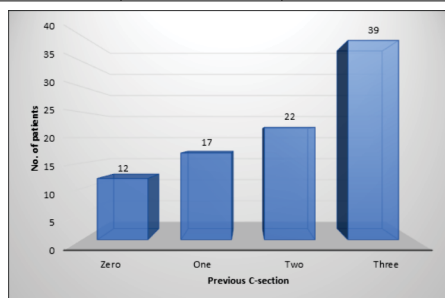


Table No- 2 Distribution of patients according to Causes of Peripartum Hysterectomy.

Causes of Peripartum Hysterectomy	No. of patients	Percentage
Placenta Accreta	35	39.00
Atonic PPH	24	26.55
Atonic PPH +accreta	17	18.89
Increta	5	5.56
Percreta	5	5.56
Placenta previa	2	2.22
Uterine rupture	2	2.22
Total	90	100.00

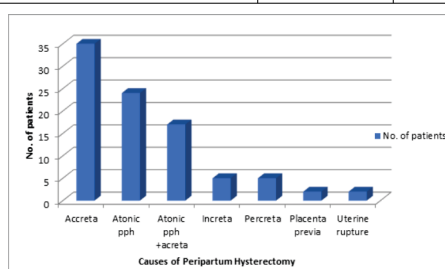
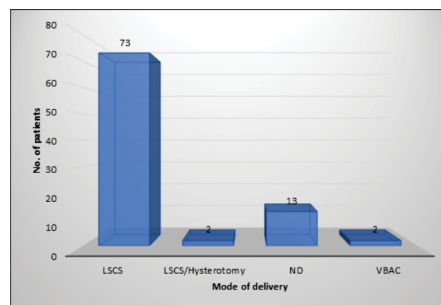


Table No-3 Distribution of patients according to mode of delivery.

Mode of delivery	No. of patients	Percentage
LSCS	73	81.11
Hysterotomy	2	2.22
ND	13	14.44
VBAC	2	2.22
Total	90	100

**DISCUSSION**

In our study we found that majority 45.5% women were gravida four followed by 20% women gravida three. Primi were 2.22% and second gravida were also 2.22%. also, 43.3% women in study group had three previous C-Section while 24.4% women had two previous C-Section. The majority 60% women had three abortion previously followed by 24.4% women with two abortion previously. In 81.1% women LSCS was performed while 14.4% of Normal delivery. VBAC was done in 2.2% women.

Sharma B et al⁶³ found that thirty-four (85%) women had previous caesarean section, of which 10 (29.4%) had previous one caesarean and 24 (70.6%) had undergone 2 or more previous caesarean. In recent studies, the incidence of peripartum hysterectomy was higher in women who had a history of either one or two previous caesarean sections.⁷¹

In our study we found that majority 39% women had Placenta accreta followed by 26.55% women of atonic PPH. Increta was seen in 5.5% women and placenta previa was seen in 2.2% women. Uterine rupture was seen in 2.22%. In our study we found that majority 40% women had placenta accreta followed by 27.78% women of atonic PPH. Increta was seen in 5.5% women and placenta previa was seen in 2.2% women and 2% had uterine rupture. We found that in 48.8% women, hysterectomy was decided at intra-operatively.

Sharma B et al⁶³ found that the main indications for peripartum hysterectomy were placenta accreta (60%), atonic PPH (27.5%), and rupture uterus (7.5%).

In our study, majority of 48.8% women hysterectomy was decided intra-operatively. In above table we found that majority 81.1% women had LSCS followed by 14.4% of Normal delivery. VBAC was done in 2.2 women. we also found that 15.5% women had bladder injury followed by 4.4% women with bowel injury and 4% ureter injury. In 10% women grade 3 bladder injury was seen followed by 7.7% women with grade 2 bladder injury and 5.56% with grade 1 injury and no grade 4 and grade 5 injury is seen. DIC seen in 13.33%. In our study 13.3% women had paralytic ileus followed by 5.56% women with respiratory distress and 3.3% women had anuria, 7.78% had peripartum pyrexia, 13.33% landed up in sepsis. In our study we found that majority 32.4% women had uterine artery ligation/step wise devascularisation followed by 27.2% women with hemostatic suture followed by 17.1% women with balloon tamponade. While in 9.9% women B-Lynch suture was used and in 3.6% women internal iliac artery ligation was seen.

CONCLUSION

Peripartum hysterectomy is the most dramatic obstetric surgery performed as a last resort in severe postpartum haemorrhage or at risk of major haemorrhage in case of morbidly adherent placenta (MAP). The indication for peripartum hysterectomy in recent years has changed from uterine atony to MAP. Women recovering from peripartum hysterectomy events undergo a different and much prolonged recovery process than we initially expected. Effects on physical, mental, and social functioning need to be documented and communicated by the clinical team for these women to receive the long-term care and help they need. Women, family, primary health

providers, employers, and insurance providers need to be educated regarding the prolonged recovery process with realistic expectations for the women to receive much needed support. Although saving lives is important, a thorough multi-disciplinary supportive care for much longer duration is required for these women for a successful recovery process. Policy planners, health insurance providers, and health care teams need to join hands in providing holistic care.

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