

# Common Causes of Obstetric Hysterectomy in BHU, Varanasi

## Abstract

**Objectives:** In recent times the incidence of Obstetric Hysterectomy is rising worldwide mostly due to rising Caesarean section rate. Caesarean section does not only increase the occurrence of scar rupture but also placenta praevia and placenta accreta. We planned to gather data regarding Obstetric Hysterectomy so that we can analyze the mother's profile, indications and complications.

**Methods:** This is an observational study to collect data for Obstetric Hysterectomy in a tertiary health set up. Data was collected over the period of July 2012- July 2015, in a particular unit of department of Obstetrics & Gynecology, Institute of Medical Sciences, Banaras Hindu University, Varanasi.

**Results:** Obstetric Hysterectomy was done 28.3% of cases for Placenta praevia, 10.4% cases for Placenta accreta, and in 43.1 % of cases for rupture uterus (20.8% with previous CS, 22.3% in uterus without any scar). Traumatic PPH was the indication in 1.4% and atonic PPH was in 16.4 % cases. There were 10.4% maternal death in this study mainly due to haemorrhagic shock and further development of Disseminated intravascular complications.

**Conclusion:** Emergency obstetric hysterectomy is the most demanding obstetric surgery performed in very trying circumstances of life threatening hemorrhage. The indication for emergency obstetric hysterectomy in recent years has changed from traditional uterine atony to abnormal placentation, due the rising Caesarean rate. Maternal morbidity and mortality can only be lowered with anticipation of the risk factors, being vigilant, involvement of an experienced obstetrician at an early stage of management and a prompt decision regarding hysterectomy after adequate resuscitation.

**Keywords:** Peripartum hysterectomy; Postpartum hemorrhage; Placenta praevia; Uterine atony; Uterine rupture

## Research Article

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## Introduction

Hysterectomy is defined as removal of uterus. When this procedure is performed in an Obstetric case it is called Obstetric Hysterectomy (OH). Almost all cases of Obstetric Hysterectomy are an emergency procedure except in a case of cervical cancer in which Caesarean Wertheim's Hysterectomy is performed [1]. Hysterectomy following Caesarean section was ever first described by Porro E (1876), it was performed to prevent maternal death from postpartum haemorrhage [2]. Obstetric Hysterectomy is either done following Caesarean Section (CS) or after normal vaginal delivery. Very rarely it can also be done in the puerperal period [3]. In recent times the incidence of Obstetric Hysterectomy is rising worldwide mostly due to rising Caesarean section rate. Caesarean section does not only increase the occurrence of scar rupture but also placenta praevia and placenta accrete [4]. We planned to gather data regarding Obstetric Hysterectomy so that we can analyze the mother's profile, indications and complications.

## Methods

This is an observational study to collect data for Obstetric Hysterectomy in a tertiary health set up. Data was collected over the period of July 2012- July 2015, in a particular unit of

department of Obstetrics & Gynecology, Institute of Medical Sciences, Banaras Hindu University, Varanasi. Proforma was prepared on which data was collected. Data was collected as patients were admitted and were on the ward in the postoperative period. Maternal age, socioeconomic status, parity, gestational age, booking status, indication of hysterectomy and maternal complications were recorded on the proforma. The study was approved by the Institutional Ethics Committee.

## Results

Study period from July 2012-July 2015. Data was collected for a particular unit in the Obstetric and Gynaecology department of Sir Sunder Lal Hospital, Banaras Hindu University, Varanasi. Data for total of 67 Obstetric hysterectomies were collected. A major proportion of women who had Obstetric Hysterectomy were in 36-40 years of age group (Figure 1). All women were multipara and maximum number was in women were third para (Table 1). 86.56% women who had hysterectomy were unbooked and were referred with bleeding or in critical condition (Table 3). Patients were in poor-middle socioeconomic status (Table 2).

Preterm stillbirth rate was 20%, term still and live birth was 31.3% and preterm live birth was 16.4% (Table 4). Obstetric

Hysterectomy was done 28.3% of cases for Placenta praevia, 10.4% cases for Placenta accreta, and in 43.1 % of cases for rupture uterus (20.8% with previous CS, 22.3% in uterus without any scar). Traumatic PPH was the indication in 1.4% and atonic PPH was in 16.4 % cases. Cases of unscarred rupture uterus were observed mainly in grand multipara. They had been laboring in peripheral set up and got referred in critical situation. The case of traumatic PPH had supralelevator haematoma diagnosed by Ultrasound (Table 5) (Figure 2).

There were 10.4% maternal death (Table 6) in this study mainly due to haemorrhagic shock and further development of Disseminated intravascular complications. Bladder injury happened during placenta praevia CS. Bladder injuries were repaired by Urology team. Paralytic ileus developed in on patient that lasted for 5-6 days, consultation was done with surgical department. This patient had Ultrasound, which showed septated collection in the pouch of Douglas. Surgeons did laparotomy to relieve her problem.

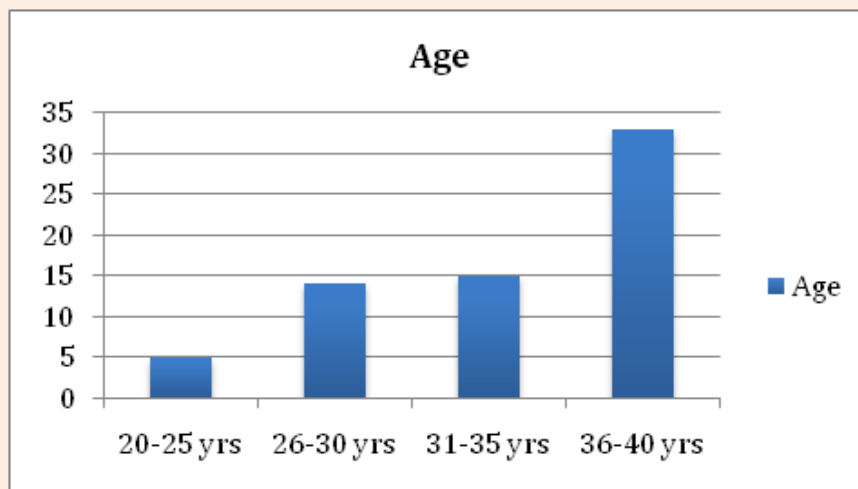


Figure 1: Age of women who had ObsHyst.

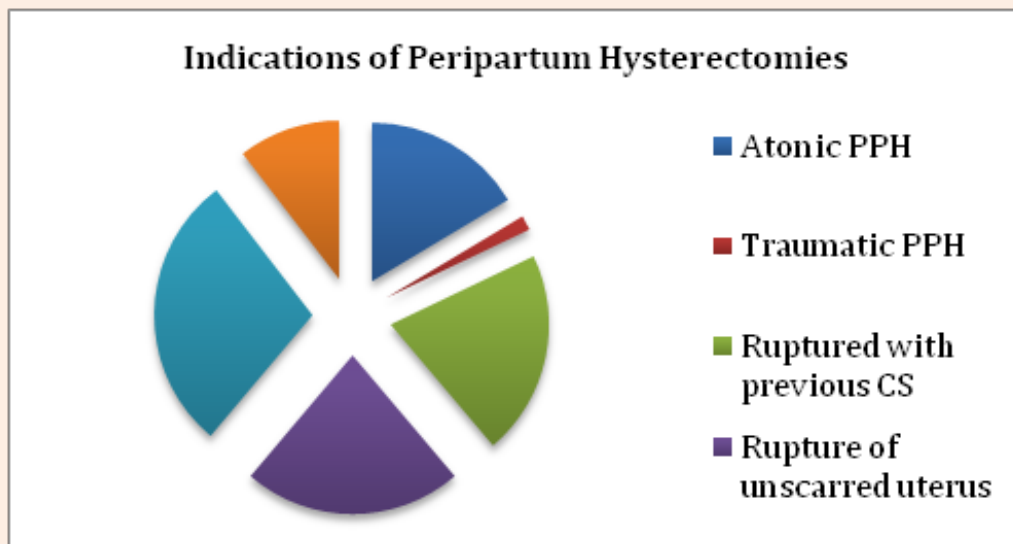


Figure 2: Indications of ObsHyst.

**Table 1:** Patients list of ObsHyst as per parity.

Para 2	7
Para 3	25
Para 4	23
Para 7	12

**Table 2:** Booking Status.

Booked	9
Unbooked	58

**Table 3:** Socioeconomic status.

Poor	37
Middle	30

**Table 4:** Preterm births.

	Stillbirths	Live births
Preterm Births	14 (20%)	11 (16.4%)
Term Births	21 (31.35%)	21 (31.35%)

**Table 5:** Indications of ObsHyst.

Indications	Number	Percentage
Atonic PPH	11	16.4%
Traumatic PPH	1	1.4%
Ruptured with previous CS	14	20.8%
Rupture of Unscarred Uterus	15	22.3%
Placenta Praevia	19	28.3%
Placenta Accreta	7	10.4%

**Table 6:** Maternal Complications.

Complications	Number	Percentage
Fever	19	28.35%
Paralytic Ileus	11	16.4%
Wound Infection	15	23.3%
Burst Abdomen	6	8.9%
Bladder Injury	12	17.9%
Maternal Death	7	10.4%

## Discussion

Incidence of Obstetric Hysterectomy is on the rise; this procedure not only needs surgical skill but also prompt decision and knowing one's limitations. Maternal complications ranged from 8-28 % presented in the Table 6. This is in accordance with the study by O'Leary et al. [5], B-Lynch et al. [6] & Chanrachakul et al. [7].

Commonest cause of Obstetric Hysterectomy was rupture uterus. This was nearly same in scarred and unscarred uterus. Lack of transport, poor socioeconomic status, lack of knowledge regarding the associated risk are mainly associated rupture uterus. This is similar to study by Mukherjee et al. [8]. The second most common indication of Obstetric Hysterectomy was Placenta Praevia. The rate is nearly similar to the study of Lau et al. [9] & Devi et al. [10].

## Conclusion

Emergency obstetric hysterectomy is the most demanding obstetric surgery performed in very trying circumstances of life threatening hemorrhage. The indication for emergency obstetric hysterectomy in recent years has changed from traditional uterine atony to abnormal placentation, due the rising Caesarean rate. Maternal morbidity and mortality can only be lowered with anticipation of the risk factors, being vigilant, involvement of an experienced obstetrician at an early stage of management and a prompt decision regarding hysterectomy after adequate resuscitation.

There is no risk assessment system that can predict all instances where Obstetric Hysterectomy 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 possibly identified before surgery if we remain vigilant.

The preoperative risk factors include previous history of CS, placenta praevia and accreta. The presence of preoperative risk factors should involve senior consultation and referral or transfer of patients to a tertiary care facility in the antenatal period.

It is imperative that hemostatic sutures are applied properly and/or uterine or hypogastric artery ligation or embolization are attempted if possible, in attempting uterine conservation particularly in patients who are young and in whom future fertility is important and who are relatively haemodynamically stable. When conservative treatment is not feasible or has failed, prompt Obstetric Hysterectomy is performed failing which the delay would contribute to the maternal morbidity and mortality which none of us would desire.

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