

# Emergency Obstetrical Hysterectomy; Determinants and Complications at Civil Hospital Bahawalpur

Hafiza Sana Shahzadi<sup>1</sup>, Asma Wazir<sup>1</sup> and Zarnain Khalid<sup>2</sup>

## ABSTRACT

**Objectives:** This study was conducted to determine the frequency of obstetric hysterectomy, morbidity and mortality associated with it.

**Study Design:** Descriptive study

**Place and Duration of Study:** This study was conducted at civil hospital Bahawalpur including the patients attending Gynae emergency, OPD and Indoor of Civil Hospital Bahawalpur from January 2016 to June 2016.

**Materials and Methods:** All emergency obstetric hysterectomies done for primary or secondary PPH were included in the study. Hysterectomies done for early pregnancy complications, like perforated uterus due to induced abortion, were excluded. Data regarding frequency of EOH, maternal age, parity, booking status, indications for hysterectomy, type of hysterectomy done and its complications, was collected by pre-designed Performa containing demographic data, risk factors, indications; complications, and SPSS V.21 used for analysis.

**Results:** Most of the women were in age group 26-30 years of age 11(68.75%) & mostly were Multipara 55%. Atonic Uterus 6(37.5%) was the major indication for obstetrical hysterectomy followed by Adherent placenta 3(18.75%), Ruptured Uterus 2(12.5%), Septic Uterus 2(12.5%), and Uterine Inversion 1(6.25%).

Bladder Rapture 5(31.25%) was the major intra or post op complication followed by fever, infection 18.75% and repeat laparotomy 12.5%. DIC complication was 2(12.5%). Mortality was seen in 6.25% cases.

**Conclusions:** The incidence of obstetrical hysterectomy in our area is relatively high and may be due to a large number of cases handed over from rural areas. These patients have risk factors such as high parity, maternity leave and family planning services.

**Key Words:** Obstetric Hysterectomy, Postpartum Hemorrhage, Uterine Contraction

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## INTRODUCTION

Obstetrical hysterectomy is an emergency method for obstetric bleeding that indicates that when the procedure fails to control bleeding.<sup>1</sup> In the long run, this is related with severe blood loss, post-op morbidity and mortality. Loss of fertility may be a destructive for patient. Uterine contraction failure (uterine atony), uterine rupture and placental abnormal adhesion are the most common indications for emergency obstetric hysterectomy. Recent studies have shown that placenta attachment on previously scar even in young females is the most common indication.<sup>2</sup>

Peripartum hysterectomy, hysterectomy, that was done at delivery time or immediate postpartum phase is one of the most serious complications of obstetrics, with significant maternal mortality and morbidity.<sup>3-6</sup>

Usually kept for condition where obstetric hemorrhage fail to response conservative treatment. peripartum hysterectomy is linked with severe blood loss, blood transfusion risk of intraoperative complications and significant postoperative morbidity. It is important to estimate the incidence of the perinatal hysterectomy, to obstetric practices, to assess risk and pregnancy complications.<sup>7-9</sup> However, these studies are unable to provide reliable national morbidity estimates because they are carried out in a small sample of a single institution. In addition, their findings may be subject to patient characteristics or hysterectomy in individual institutions of practice mode.

The management of Postpartum Hemorrhagic fails to Response Non-surgical measures then surgical procedures commonly used in the management.<sup>10</sup> Obstetric hysterectomy includes caesarean section and postpartum hysterectomy. The purpose of the initial cesarean section hysterectomy is to reduce bleeding, sepsis and mortality. Sepsis, bleeding and eclampcia are the main cause of death. The first operation was in North America by the by Horatio storer, then by Edvardo parro, pavia, in Italy in 1876 and by Lawson tail in UK.<sup>11</sup> Who suggested that the maternal mortality rate was only 5% compared with 95% caesarean and alone 3% Indications of obstetric hysterectomy

<sup>1</sup>. Department of Obstet &Gynae, Civil Hospital, Bahawalpur.

<sup>2</sup>. Department of Obstet &Gynae., BVH, Bahawalpur.

Correspondence: Dr Asma Wazir, WMO,  
Gynae Department Civil Hospital Bahawalpur.  
Contact No: 0307-7397825  
Email: Drdrasmawazir310@yahoo.com

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continue to change over time. Knowledge of this operation and skills in its performance can save many people's lives

Numerous studies have examined the associated risk factors linked with perinatal hysterectomy. Often, these studies reported more than 10 fold higher perinatal hysterectomy for women who had previously delivery by cesarean sections in those who had not<sup>12</sup> found the most worthy of careful study, given that in the United States, cesarean delivery rates rose 10 times higher even at low risk women.<sup>13</sup> However, several studies examined the effects of the current pattern of previous cesarean sections. It is also reported that the risk factors for perinatal hysterectomy are multiple births, 5 of which the rate is also increasing

In Pakistan, due to the lack of health care facilities in rural areas and lack of awareness of family planning is the incidence much higher than the incidence of developed countries.

The aim of this study was to determine the frequency associated with obstetric hysterectomy, morbidity and mortality associated with this it.

## MATERIALS AND METHODS

This descriptive study was carried out at civil hospital Bahawalpur including the patients attending Gynae emergency, OPD and Indoor of Civil Hospital Bahawalpur from January 2016 to June 2016. All emergency obstetric hysterectomies done for primary or secondary PPH were included in the study. Hysterectomies done for early pregnancy complications, like perforated uterus due to induced abortion, were excluded. Data regarding frequency of EOH, maternal age, parity, booking status, indications for hysterectomy, type of hysterectomy done and its complications, was collected by pre-designed Performa containing demographic data, risk factors, indications; complications, and SPSS V.21 used for analysis.

## RESULTS

During our research duration 3675 deliveries and 1489 C-section were performed, out of them 16 (.31%) cases underwent obstetrical hysterectomy.

Distribution by age, parity, indications and complications are presented in Tables 1, 2, 3 and Figure 1. Most of the women were in age group 26-30 years of age 11(68.75%) & mostly were Multipara 55%.Atonic Uterus 6(37.5%) was the major indication for obstetrical hysterectomy followed by Adherent placenta 3(18.75%), Ruptured Uterus 2(12.5%), Septic Uterus 2(12.5%),and Uterine Inversion 1(6.25%).

Bladder Rapture 5(31.25%) was the major intra or post op complication followed by fever, infection 18.75% and repeat laparotomy 12.5%.DIC complication was 2(12.5%).

Mortality was seen in 6.25% cases. All cases were with unbooked status.

**Table No. 1: Distribution of cases of emergency hysterectomy by age**

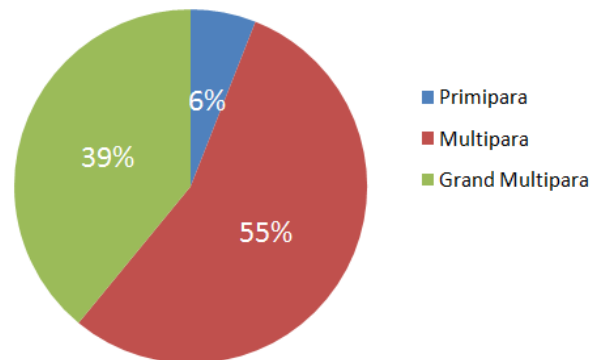
Age (Years)	No.	Percentage
20-25	2	12.5%
26-30	11	68.75%
31-35	2	12.5%
36-40	1	6.25%

**Table No. 2: Indication of emergency obstetrical hysterectomy**

Indication	No.	Percentage
Atonic Uterus	6	37.5%
Adherent placenta	3	18.75%
Ruptured Uterus	2	12.5%
Lacerations	2	12.5%
Septic Uterus	2	12.5%
Uterine Inversion	1	6.25%

**Table No. 3: Intra-operative and Post-operative Complication**

Complications	No.	Percentage
Bladder Rapture	5	31.25%
Fever	3	18.75%
Wound Infection	3	18.75%
Repeat Laparotomy	2	12.5%
DIC	2	12.5%
Mortality	1	6.25%



**Figure No.1: Distribution of cases of emergency hysterectomy by para**

## DISCUSSION

Obstetric hysterectomy is an emergency procedure that has always been implemented to save women's lives when all other methods cannot save the uterus. In our study the incidence of acute hysterectomy was 0.31%. The higher incidence rate is compared with other national and international studies because our hospital covered the rural areas. Most of the people belong to low-income groups, and most of the deliveries by untrained Dais, and patients who are referred to the hospital are usually very serious. Most patients 68.75% belong to the young age group of 20-30 years, belong to multipara groups and grand multipara, comparable to a study in India<sup>14</sup> showing a comparable rate. It may be as a result of social and cultural view of early wedding and keep away from contraception.

The most common indication of acute hysterectomy is uterine atony 37.5%, placental pathological adhesions 18.75% and uterine rupture (12.5%).

In 18.75% patients; hysterectomy is due to placental pathological adhesions on the last scan, comparable to other studies conducted in Pakistan<sup>15-17</sup> Abnormal placenta may be associated with an increasing incidence of surgical delivery. Only one (6.25%) maternal mortality that is lesser to other studies in Pakistan.<sup>18</sup>

Most of the complications observed in the study were bladder injury, fever and wound infection. DIC and repeated laparotomy due to bleeding are less common, these same reports of other studies.<sup>19-22</sup> The incidence of complications can be avoided by early referral and effectively treatment of emergency obstetric cases management.

A variety of factors may increase the risk of peripartum hysterectomy associated with cesarean delivery. The procedure itself, the complications of childbirth or other factors leads to perform the cesarean delivery. However Kacmar et al<sup>23</sup> found that cesarean delivery after childbirth absolute indication of peripartum hysterectomy even with indication of cesarean delivery associated with increased risk placenta previa, or more Multiple cesarean delivery, or triplets or high-order multiple pregnancy were excluded

Cesarean delivery may be related with a higher risk of peripartum hysterectomy than vaginal delivery because the uterus is easier to remove. Cesarean delivery may increase the risk of peripartum hysterectomy, directly or indirectly through increased risk for peripartum hysterectomy i.e. (placenta previa, placenta accrete, uterine rupture) in subsequent pregnancies.

## CONCLUSION

Emergency obstetric hysterectomy is a lifesaving procedure in our setting with low morbidity and mortality and high disability rates. It can be minimized by controlling the avoidance of factors such as high parity and lack of family planning and improvement of health care services in rural areas to provide health care services.

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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