

Audit of Patients Undergoing Obstetrical Hysterectomy for Postpartum Hemorrhage

FARHANA ZAINAB, SYEDA ALI, MEHNAZ KHAKWANI

ABSTRACT

Aim: To determine the frequency, morbidity and mortality associated with obstetrical hysterectomy.

Methods: This descriptive study was conducted in the Department of Obstetrics and Gynaecology, Nishtar Hospital, Multan from July 2012 to December 2012. A total of 26 patients with complaint of excessive bleeding after delivery were included in the study.

Results: Ruptured uterus was the major cause in 12 (46.1%) cases, while in 10 (38.5%) cases uterine atony was the indication for obstetrical hysterectomy. In Most of the cases 19 (73.1%) total abdominal hysterectomy was performed while in 7 (26.9%) cases sub total abdominal hysterectomy was performed. Out of 26 hysterectomies, 6 cases had immediate complications, 15 cases developed late complications and remaining. Maternal mortality was observed in 3 (11.5%) cases.

Conclusion: It is concluded from the study that obstetrical emergency hysterectomy is a necessary procedure for life saving during abdominal and vaginal deliveries.

Keywords: Postpartum hemorrhage, obstetrical hysterectomy, uterine atony.

INTRODUCTION

Excessive blood loss after birth is a major cause of morbidity and mortality in both industrialized and non-industrialized countries^{1,2,3,4}. Postpartum hemorrhage is the most common complication of third stage of labour⁵. Above 5-8% of obstetric patients suffer serious postpartum blood loss, especially in rural communities, where majority of the world population live. Postpartum hemorrhage is primary if bleeding occurs in excess of 500 ml in the first 24 hours following delivery or secondary if bleeding occurs after 24 hours postpartum and within 6 weeks of delivery⁶. Visual estimation of postpartum blood loss is notoriously inaccurate⁷. Studies using radio-labeled red cells⁸, acid haematin extraction⁷ and meticulous collection and measurement of shed blood⁹ have shown that clinical estimation of blood loss under estimates the incidence of hemorrhage by 30-50%.

Indeed, some of these studies have reported that the average volume of blood loss following vaginal delivery is approximately 500 ml suggesting that the use of this minimum cut off level for postpartum hemorrhage is invalid. For this reason, it is now revised to 1000 ml instead of smaller volume of adopted previously¹⁰. Other suggested ways of defining postpartum hemorrhage include a significant fall in haematocrit following delivery or the need for blood transfusion¹¹. Primary postpartum hemorrhage occurs in about 5% of deliveries and secondary postpartum hemorrhage occurs in only 1% of women¹².

The possible causes of postpartum hemorrhage are atonic uterus, abruption placenta, retained placenta, genital tract trauma, placenta accrete, uterine inversion and coagulation disorders. The risk factors for severe postpartum hemorrhage are abnormal placentation, previous cesarean section¹³. Secondary postpartum hemorrhage is associated with retained placenta and may result in significant maternal morbidity¹⁴.

Upon recognition of postpartum hemorrhage, the most effective management should be initiated. Every effort should be made to stabilize the patient and maintain her reproductive capabilities¹⁶. In patient with massive hemorrhage during delivery, hemostasis is first attempted using uterotonic drugs, uterine massage and intrauterine packing. However, if these maneuvers fail, then uterine artery ligation, B-lylch and subendometrial vasopressin injection are attempted¹⁷. But if these measures fail, emergency peripartum hysterectomy is the last step¹⁸. An early resort to hysterectomy when conservative measures fail will minimize maternal morbidity and mortality¹⁹.

MATERIAL AND METHODS

This descriptive study was conducted in the Department of Obstetrics and Gynaecology, Nishtar Hospital, Multan from July 2012 to December 2012. A total of 26 patients with complaint of excessive bleeding after delivery were included in the study.

RESULTS

During the study period, 26 obstetrical hysterectomies were performed. Most of the cases of

Department of Obstetrics and Gynaecology, Nishtar Medical College/Hospital, Multan
Correspondence to Dr. Farhana Zainab

obstetrical hysterectomies belonged to the age group 30-39 years. Regarding parity, 16(61.6%) cases were having 6-11 deliveries. Total abdominal hysterectomy was performed in 19(73.1%) cases while in 7 (26.9%) cases subtotal abdominal hysterectomy was performed. Twelve (46.1%) patients were delivered vaginally. Primary postpartum hemorrhage was occurred in 24(92.3%) cases. There were 22 hospital deliveries and 4 home deliveries. Ruptured uterus was the cause in 12 (46.1%) cases (Table 1). Out of 26 hysterectomies, 6(23%) cases had immediate complications, 15(77%) cases developed late complications (Table 2). Amount of bleeding was mild in 3(11.5%) cases moderate in 10(38.5%) cases and severe in 13(50%) cases (Table 3). Postoperative morbidity was observed in 21(80.8%) cases as shown in table 4.

Table 1: Causes of obstetrical hysterectomy (n=26)

| Cause | n | %age |
|------------------|----|------|
| Ruptured uterus | 12 | 46.1 |
| Uterine atony | 10 | 38.5 |
| Placenta accrete | 01 | 03.9 |
| Placenta previa | 03 | 11.5 |

Table 2: Complication after obstetrical hysterectomy (n=26)

| Complication | n | %age |
|---------------------|----|------|
| Immediate | | |
| Anaesthesia | 01 | 03.9 |
| Injury to bladder | 03 | 11.5 |
| Haematoma | 02 | 07.7 |
| Late | | |
| Coagulopathy DIC | 04 | 15.5 |
| Acute renal failure | 02 | 07.7 |
| DVT | 01 | 03.9 |
| Wound infection | 06 | 23.1 |
| Psychological | 02 | 07.7 |
| Maternal death | 03 | 11.5 |

Table 3; Amount of vaginal bleeding in patients with PPH (n=26)

| Amount | n | %age |
|--------------|----|------|
| 1000-1500 ml | 03 | 11.5 |
| 1500-2000 | 10 | 38.5 |
| 2000-3000 | 13 | 50.0 |

Table 4: Causes of obstetrical hysterectomy (n=26)

| Cause | n | %age |
|------------------|----|------|
| Ruptured uterus | 12 | 46.1 |
| Uterine atony | 10 | 38.5 |
| Placenta accrete | 01 | 03.9 |
| Placenta previa | 03 | 11.5 |

Table 4: Postoperative morbidity and mortality after obstetrical hysterectomy (n=26)

| Complication | n | %age |
|--------------------|----|------|
| Morbidity | 21 | 80.8 |
| Maternal mortality | 03 | 11.5 |
| No complication | 02 | 07.7 |

DISCUSSION

Postpartum hemorrhage is a disastrous complication which can occur in third stage of labour. It is still a major cause of maternal morbidity and mortality in developing countries¹.

Postpartum hemorrhage is a continuing problem seen in obstetrics. Maternal mortality from postpartum hemorrhage is a much greater problem in developing countries. WHO estimates that approximately 500,000 women died each year from pregnancy related causes and at least 98% of these deaths occur in developing countries⁶⁰. Postpartum hemorrhage is estimated to account for approximately 28% of pregnancy related deaths worldwide basis¹⁵. In contrast the developing countries such as Turkey, Saudi Arabia, South Africa and Ghana, the leading cause of maternal mortality remains primary postpartum hemorrhage which is 25-43% of all maternal deaths⁹⁰. In developed world it is rare tragedy, rates are 14/100,000 live births⁷⁹. In present study maternal mortality rate associated with obstetrical hysterectomy is 11.5%.

Most of the women in Pakistan live in rural areas, having no antenatal care during pregnancy, multiple child births and delivery is conducted at home by untrained birth attendants⁹³. During purperrum no importance is given to improve general health.

The incidence of postpartum hemorrhage in present study is 3.9% as compared to baseline incidence in UK is 4-11%⁹⁴ and in New Zealand 18% of all women suffering a primary postpartum hemorrhage of 500-1000ml and 4% suffering from primary blood loss > 1000 ml⁹⁵. In present study 11.5% bleed from 1000-1500 ml and 88.5% blood loss of > 1500 ml.

Regarding the age group associated with increased incidence of obstetrical hysterectomy, in present study it was 30-39 years about 57.7%. The risk of PPH increases in advanced maternal age (over 35 years). The risk of PPH also increases with grand multiparity (para 5 and over)⁹⁶. In present study, 61.6% of cases were para 6 or over.

It is reported in a study that subtotal abdominal hysterectomies 88.6% and total abdominal hysterectomies 11.3%⁹⁷. In another study, 82.8% subtotal hysterectomies were performed⁹⁸. Results of present study differ where total abdominal hysterectomy was performed in 73.1% cases and subtotal abdominal hysterectomy in 36.9% of cases.

CONCLUSION

In is concluded from the study that obstetrical emergency hysterectomy is a necessary procedure

for life saving during abdominal and vaginal deliveries.

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