

ORIGINAL STUDY

Peripartum Hysterectomy: A Review of 70 Cases

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Abstract

Objectives: To study the incidence, indications and complications of peripartum hysterectomy.

Methods: A retrospective analysis of 70 cases of emergency peripartum hysterectomy performed over a period of five years from January 2004 to September 2008. At JN Medical College and Hospital AMU Aligarh was done.

Results: The incidence of emergency hysterectomy was 0.54%. The main indications were uterine atony 26 (37.12%) and Rupture uterus 19 (26.7%). Thirty six (51.43%) were in the age group of 26-35 years and majority of cases 61 (67.14%) were unbooked. The maternal and perinatal mortality was four (5.7%) and 44 (62.86%) respectively. The average period of hospital stay was 10 days.

Conclusion: Prompt performance of obstetric hysterectomy before the patient's clinical condition deteriorates is the main key to success and less postoperative complications.

Keywords: Peripartum hysterectomy, uterine atony, rupture uterus, maternal mortality.

INTRODUCTION

Peripartum hysterectomy, although rare in modern obstetrics, remains a life saving procedure when severe obstetrical hemorrhage fails to respond to conservative treatment. The incidence of obstetric hysterectomy varies from center to center depending on available facilities at peripheral centers as antenatal care, intranatal monitoring, obstetrical expertise, blood transfusion facility and efficient transport. The present study was carried out to determine the incidence, indications, maternal and perinatal outcome associated with peripartum hysterectomy.

METHODS

A retrospective analysis of 70 cases of peripartum hysterectomy was done from January 2004 to September 2008 at Jawaher Lal

Nehru Medical College and Hospital, Aligarh Muslim University, Aligarh. The hospital records of all women were reviewed. Maternal characteristics, Indications for the hysterectomy, type of hysterectomy, maternal and perinatal outcome, duration of hospital stay and complications were obtained from the records. The total number of deliveries was also identified.

RESULTS

There were a total of 12,962 deliveries, out of which 8629 were vaginal deliveries and 4322 were cesarean section from January 2004 to September 2008. During this same period, there were 70 peripartum hysterectomies. The incidence of peripartum hysterectomy was 0.54%.

The ages of women ranged from 21-45 years with a mean of 32.5 years. The highest frequency was in the 26-35 years age group and constitute about 51.43% of the total cases (Table 1). The parity of the patients ranged from 1-11. Only 8 women were primiparas. The highest frequency was in those, who were Para 3 to 4 and together constitute about 48.54% (Table 1). Sixty one (87.14%) women were unbooked and only nine (12.8%) women were booked and had pregnancy complications like placenta previa, placenta accreta and fibroid uterus.

Table 1: Age and parity

Age (years)	No. of patients	Percentage
20-24	13	18.6%
25-29	16	22.9%
30-34	20	28.6%
35-39	12	17.1
40-45	9	12.9
Parity	–	–
Primigravida	8	11.4%
Gravida 2	7	10.0%
Gravida 3	15	21.4%
Gravida 4	19	27.14
Grand multi	21	30.0%

The indication for peripartum hysterectomy was severe hemorrhage caused by uterine atony 26 (37.14%), uterine rupture 19 (26.7%) placenta previa 10 (14.29%), abruptio placentae seven (10%) and placenta accreta four (5.71%). Two women (2.8%) women had hysterectomy for sepsis and, one (1.4%) for fibroid uterus and one (1.4%) for cervical fibroid (Table 2). All conservative measures were tried in almost all cases of atonic postpartum hemorrhage (PPH) except in very low cases, before taking the decision for hysterectomy. Bilateral uterine artery ligation and bilateral ovarian artery ligation were performed in five cases of atonic uterus and B-lynch brace suture were applied in three cases. In two cases of atonic PPH, vaginal packing was done. The risk factors for atonic PPH were grand multiparity in eight cases, severe anemia in eight cases, twins in four cases, obstructed labor in four cases, and chorioamnionitis in two cases. Out of 26 cases of atonic uterus, only five (19.23%) cases of atonic PPH developed after vaginal delivery and rest twenty one (80.77%) after cesarean delivery.

Out of 19 cases of rupture uterus, nine had previous scar rupture, three cases were handled by dai with oxytocin abuse, two were in obstructed labor, two were grand multipara and three cases of accidental hemorrhage came late in prolonged labor.

Out of 70 cases, subtotal hysterectomy was performed in 62 cases (89%) and total hysterectomy was done in seven cases (11%). The reason for total hysterectomy in seven cases were either extension of tear into cervix or, bleeding from the bed of placenta previa and placenta accreta. In four cases additional surgical procedures were performed as bladder injury repair in two cases, ureteric exploration done in one case and two case required relaparotomy, for collection of blood in abdominal cavity due to oozing from cervical stump.

Broad spectrum antibiotic coverage were given to all cases. All patients required blood transfusion of 2-5 units.

There were four maternal deaths, two because of disseminated intravascular coagulation, one because of septicemic shock and hemorrhagic shock was responsible for one maternal death.

The perinatal mortality was 44 (62.86%). Out of 44 perinatal deaths, 36 were still birth, four were intrauterine death and two newborns with low apgar score were died with in seven days. One baby was having multiple congenital anomalies and in one baby Arnold-Chiari malformation was present.

Eighteen cases (25.7%) had febrile morbidity, (Table 3) seven had paralytic ileus, seven had urinary tract infection, four had respiratory tract infection, six had wound infection, two developed severe life-threatening septicemia with renal shut down, who were expired later on, nine cases were shifted to intensive care unit, two had bladder injury, one had ureteric injury and two developed disseminated intravascular coagulation.

Table 2: Indications for peripartum hysterectomy

Indications	Number	Percentage
Uterine atony	26	37.14%
Rupture uterus	19	26.70%
Placenta praevia	10	14.29%
Abruptio placentae	7	10.00%
Placenta accreta	4	5.71%
Grossly infected uterus	2	2.80%
Uterine fibroid	1	1.40%
Cervical fibroid	1	1.40%

Table 3: Postoperative complications

Indications	Number	Percentage
Febrile morbidity	18	25.7%
Anemia	14	20%
Urinary tract infection	7	10%
Respiratory tract infection	4	5.5%
Wound infection	6	8.5%
Severe life-threatening septicemia	2	2.8%
Intensive care unit transfer	9	12.7%
Ureteric injury	1	1.4%
Bladder injury	2	2.8%
Mild-to-severe coagulopathy	2	2.8%

The average period of hospital stay was of 10 days, ranging from 8-38 days, the maximum stay was in case of septicemia with acute renal shut down.

DISCUSSION

Emergency peripartum hysterectomy remains a life saving procedure in intractable postpartum hemorrhage and catastrophic rupture of the uterus. The incidence of this procedure is 0.54% which is almost comparable to that of Baskett (2003),¹ which was 0.53% and is higher to other studies as shown in Table 4.

The atonic postpartum hemorrhage is the most common indication for in our study which is comparable to Kant and Wadhvani.² The second most common indication is rupture uterus which is a commonest induction in other studies as shown in Table 4.

Sixty two (89%) cases had subtotal hysterectomy with remaining 7(11%) having total hysterectomy. Although total hysterectomy is operation of choice, It is always not possible to do total hysterectomy as the patients general condition is often very poor. This is almost comparable with the study done by Singh and Nagrath³ in which they reported 87.27% cases required subtotal hysterectomy.

The maternal mortality in present study is 5.7%, which is almost comparable to Sahu *et al*⁴ which is 5.55%, no deaths reported by Baskett¹ and higher maternal mortality reported by others as shown in Table 4.

Table 4: Comparative Indices

<i>Name of study</i>	<i>Incidence</i>	<i>Common indication</i>	<i>Maternal mortality</i>
Afaf RA and Salah MA (2000) ⁷	0.04%	Placenta praevia	8.00%
Sahu et al (2004) ⁴	0.2006%	Rupture uterus	5.55%
Kant and Wadhvani (2005) ²	0.26%	Atonic PPH	9.70%
Singh and Nagrath (2005) ³	0.43%	Rupture uterus	1.96%
Kwame-Aryee et al (2007) ⁵	0.43%	Rupture uterus	12.90%
Ahmad and Mir (2007) ⁸	0.26%	Rupture uterus	3.00%
Siddiq N et al (2007) ⁹	0.56%	Rupture uterus	9.70%
Sahasrabhojane et al (2008) ¹⁰	0.35%	PPH	10.00%
Marwaha P et al (2008) ⁶	0.31%	Rupture uterus	10.00%
Present study	0.54%	Atonic PPH	5.70%

The perinatal mortality is 62.86%, which is high and in other studies it is 48.35 to 100% in respectively.^{5,6}

Postoperative complications as febrile morbidity, paralytic ileus, urinary tract infection, wound infection, bladder injury, septicemia, acute renal failure and DIC were common and comparable with other studies.^{3,6,8}

CONCLUSION

Severe life-threatening hemorrhage requiring hysterectomy is not a uncommon procedure in obstetric practice in a developing country such as ours. It is therefore very essential for every obstetrician that she/he should be trained in early diagnosing, treating and performing conservative procedures as uterine and ovarian artery ligation, B-lynch procedures as well as hysterectomy, as experience matters in saving the life of mothers.

Effective antenatal care, enhancement of blood transfusion facilities, and improvement of surgeon skills are important to reduce the morbidity associated with the procedure.

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