

Epidemiology and Feto-Maternal Outcomes of Patients Undergoing Peripartum Hysterectomy: A Retrospective Study

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Abstract: Background: Peripartum hysterectomy (surgical removal of uterus in obstetrical complications) is a major form of surgery, and is an indicator of significant morbidity and mortality. It has been in practice since long time, although the indications and epidemiology has changed over the years. Aim: To study the epidemiology and feto-maternal outcomes of patients undergoing peripartum hysterectomy in 2022 at Dr. Sampurnanand Medical College, Jodhpur. Methodology: It was a retrospective study conducted from medical records of all patients undergoing peripartum hysterectomy in 2022 at the mentioned tertiary care centre. Result: Conclusion: Clinical Significance: Peripartum hysterectomy is a high risk procedure which can be a life saving in a number of conditions like PPH, rupture uterus, accreta spectrum disorders.

Keywords: Peripartum hysterectomy, epidemiology, feto-maternal outcome, morbidity, PPH

1. Introduction

Peripartum hysterectomy is defined as a hysterectomy performed at the time of delivery or in the immediate postpartum period. It is mostly performed as a lifesaving procedure in the case of persistent obstetric haemorrhage due to uterine atony, placental disorders, uterine rupture, lacerations during caesarean section (CS), fibroids or infections. The first successful operation was performed in 1876 (1) The increasing rate of CSs worldwide and the concomitant rise in placenta praevia and accrete and have resulted in an ever increasing incidence of PH worldwide. The incidence varies from 0.3 to 1.6 per 1,000 deliveries in developed countries (2) and may be higher in developing countries (3) Although a life saving procedure conducted when all other medical and surgical measures fail, it is associated with significant morbidity and mortality.(4)

2. Aim & Objectives

To study the epidemiology and the feto- maternal outcomes in terms of incidence, morbidity, mortality of patients undergoing peripartum hysterectomy at Dr. S N Medical College, Jodhpur during January 2022- December 2022.

3. Methodology

This was a retrospective study of patients who underwent peripartum hysterectomy at Dr. S N Medical College, Jodhpur during 1 year period (January 2022- Decmber2022) using patient records. Epidemiological factors including age, parity, referral status, type of delivery, cause of hysterectomy were studied. Maternal outcomes in term of ICU stay, need for transfusion, post-op complications,

mortality were studied. Fetal outcome in term of NICU stay and mortality were noted too.

4. Results & Discussion

36 patients underwent peripartum hysterectomy during the course of study. Mean age of patients was 31 yrs, ranging from 24 to 35 yrs of age. Incidence of peripartum hysterectomy- 0.14% Incidence of peripartum hysterectomy in vaginal delivery was 0.12% while it was 0.16% in caesarean section. Mean ICU stay was found to be 5 days.

The parity distribution was found to be as follows-

Parity	No. Cases	%
P0	0	0
P1	6	17
P2	14	39
P3	8	22
P4	4	11
P5	4	11

Amongst patients with previous history of undergoing lscs (lower segment caesarean section), 62% had one lscs before while 38% had a history of previous 2 lscs done.

	No. cases	%
Prev 1 LSCS	10	62.50%
Prev 2 LSCS	6	37.50%

70% patients underwent total hysterectomy while 30% underwent subtotal type of hysterectomy.

The referral and booking status of patients under study was as follows-

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Type of case	%
Referred	45
Unbooked	40
Booked	15

Distribution of causes for peripartum hysterectomy was found to be as follows, PPH accounting for maximum of 45% cases, followed by rupture uterus, morbidly adherent placenta and antepartum haemorrhage.

Cause	%
PPH	45
Rupture uterus	25
Adherent placenta	20
APH	15

Peripartum hysterectomy is associated with significant morbidity and mortality at maternal level which was found to be as follows-

Complication	No. of cases (%)
Post-op fever	6 (27%)
SSI	4 (18%)
DIC	3 (14%)
Renal failure	2 (9%)
Bladder injury	1 (5%)
Maternal death	6 (27%)

There is associated fetal morbidity in terms of prematurity, NICU admission and also significant mortality. The incidence for the same were found to be as follows-

Fetal outcome	No. of cases
Stillbirth	5 (16.6%)
NICU admission	12 (40%)
Preterm birth	7 (23.4%)
Neonatal death	6 (20%)

5. Conclusion

The peripartum hysterectomy incidence of 0.14 per 1,000 deliveries at the centre compares favourably with those quoted from developed countries. Much higher rates of 2.7 per 1,000 deliveries have been reported from other developing countries. (5)

Women who underwent peripartum hysterectomy in our study were younger (mean age- 30 years) compared to high-income countries where the mean age was 34.5 ± 5.5 years (6). Younger age at hysterectomy can be attributed to younger age at marriage and childbearing in our country.

Peripartum hysterectomy was significantly higher when caesarean section (CS) was the primary mode of delivery compared to vaginal deliveries in our center. The incidence of CS has increased in India and worldwide (7) Previous caesarean and caesarean delivery in an index pregnancy is a strong risk factor for emergency peripartum hysterectomy with higher risks conferred for each additional CS done. In addition, the previous caesarean is a risk factor for the morbid adherent placenta. Hence efforts must be directed to prevent primary CS in the first pregnancy which will have a role in reducing the incidence.

Worldwide, there has been a shift in the primary indication from uterine atony to morbidly adherent placenta (8). On the contrary, our study showed intractable hemorrhage due to uterine atony as the most common cause, which can be attributed to the fact that PPH is still a major obstetric complication for which patients are referred to the centre.

Peripartum hysterectomy is associated with significant morbidity and mortality at both fetomaternal level. Thus, obstetricians should identify patients at risk, anticipate the procedure and complications to facilitate optimal outcome.

6. Future Scope

Studying the epidemiology of peripartum hysterectomy allows us to know the pattern of obstetrical high risk conditions existing in our society and the significant impact it has on the fetomaternal level.

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