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PERIPARTUM HYSTERECTOMY: ASSOCIATED RISK FACTORS AND OUTCOME

Gynaecology

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ABSTRACT

Introduction : Peripartum hysterectomy, although rare in modern obstetrics, a life saving procedure when severe obstetrical hemorrhage fails to respond to conservative treatment. The incidence of obstetric hysterectomy varies from center to center depends upon numbers of deliveries, numbers of referral case, antenatal, intranatal, postnatal care and available facilities at centre.

Aims And Objectives: To find out associated risk factors and outcome after peripartum hysterectomy at our tertiary care hospital.

Material And Methods: This retrospective study was conducted at our Tertiary Care Hospital during the period from 1st January 2017 to 31th December 2017 on patients who underwent peripartum hysterectomy either immediately or within forty-two days of vaginal or cesarean delivery.

Results : The incidence observed in this study is 0.95 peripartum hysterectomy undergone in/1000 pregnancies (0.095%) recorded at our tertiary care hospital (Rajasthan, India) in the duration from January 2017 to December 2017. 61.11% of patient were para 2 and 3. 16.66% were para >4. The peripartum hysterectomy i.e. 11 (61.11%) cases followed after caesarian section, whereas 7 (38.88%) cases ended in peripartum hysterectomy following vaginal delivery. The most common indication for peripartum hysterectomy was atonic PPH i.e. 9 (50%) cases followed by rupture uterus i.e. 4 cases (22.22%). The most common postoperative complication was paralytic ileus 30% followed by septicemia 20% and urinary tract infection 20%.

Conclusion: Peripartum hysterectomy, though uncommon, remains a challenging but life saving procedure in obstetrics. Its indication in modern obstetrics are changing and still emerging. Antenatal diagnosis of low lying and adherent placenta, minimizing the CS rate, proper and timely management of third stage of labor and emergency preparedness are imperative to minimize the chances of Peripartum hysterectomy and improving the outcome.

KEYWORDS

Peripartum Hysterectomy; PPH; Rupture Uterus; Septicemia

INTRODUCTION

Peripartum hysterectomy, although rare in modern obstetrics, a life saving procedure when severe obstetrical hemorrhage fails to respond to conservative treatment.

The incidence of obstetric hysterectomy varies from center to center depends upon numbers of deliveries, numbers of referral case, antenatal, intranatal, postnatal care and available facilities at centre.

Emergency obstetric hysterectomy (EOH) continues to remain an important life saving procedure in the era of modern obstetrics. EOH acts as a near miss marker as a proxy for maternal mortality.

Emergency peripartum hysterectomy (EPH), although rare in modern obstetrics, remains a life-saving procedure in cases of severe hemorrhage. Postpartum hemorrhage is one of the leading causes of maternal mortality and morbidity and represents the most challenging complication that an obstetrician will face.

AIMS AND OBJECTIVES

- The aim of study was to find out associated risk factors and outcome after peripartum hysterectomy at our tertiary care hospital.

MATERIAL AND METHODS

This retrospective study was conducted at our Tertiary Care Hospital during the period from 1st January 2017 to 31th December 2017.

Inclusion Criteria

- Patients who underwent peripartum hysterectomy either immediately or within forty-two days of vaginal or cesarean delivery.
- Peripartum hysterectomy performed after 28 weeks of gestational age.

Exclusion Criteria

- Cases of hysterectomy performed before 28 weeks of gestational age.
- Hysterectomy performed for any gynecological condition like leiomyomas and carcinoma cervix were not included in the study.

Cases were analyzed in terms of:

1. Age, residence (rural/urban), caste, booked /unbooked.
2. A detailed history of present pregnancy and previous pregnancy.
3. Any high risk antenatal factor present is noted.
4. General physical examination.
5. Type of delivery and indication for obstetric hysterectomy.
6. Amount of blood transfusion required was noted.
7. Post operative complication and duration of hospital stay.

Investigations

1. Routine examination for CBC (including hemoglobin, total and differential white cell count, platelet count) blood group, TSH, blood sugar, blood urea, HIV, VDRL, HbsAg.
2. Urine examination for Albumin, Sugar and microscopical abnormalities.
3. Coagulation profile including bleeding time, clotting time, and prothrombin time (BT, CT, PT/ INR).
4. Liver functions tests included:-S. bilirubin, plasma proteins, Serum transaminases enzymes (SGOT, SGPT), alkaline phosphatase (ALP).
5. Renal function test included:- S. urea, S. creatinine, S. uric acid
6. Others like Arterial blood gas analysis, USG whole abdomen, chest X-ray, ECG in critical care patients postoperatively.

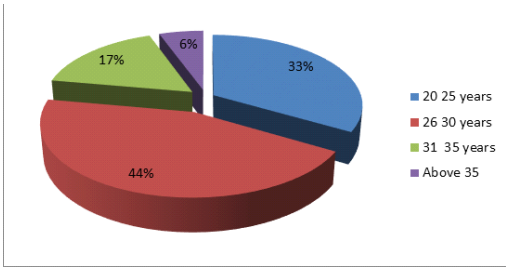
Table No.1 Comparison with reported incidence of Peripartum Hysterectomy as follows

Authors	Year	Incidence reported of Peripartum Hysterectomy
Amudha et al	2016	1.01%
Rekha et al	2015	0.18%
Nohira et al	2014	0.03%
Swati et al	2013	0.047%
Carvalho et al	2012	0.041%
Lovina et al	2011	0.87%
Rajyshree et al	2009	0.54%
Ahmed et al	2006	0.26%
Present series	2017	0.095%

Table No.2 Incidence of Peripartum Hysterectomy

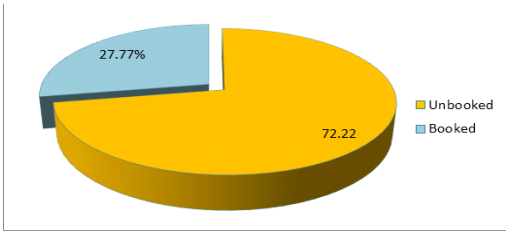
Period of study	Total no. of deliveries	Total no. of caesarean section	Total no. of vaginal delivery	Total no. of Peripartum Hysterectomy	Incidence (%)
January 2017 to December 2017	11189291	6416	12969	18	0.095%

The incidence observed in this study is 0.95 Peripartum Hysterectomy undergone in/1000 pregnancies (0.095%) recorded at our Tertiary care hospital (Rajasthan, India) in the duration from January 2017 to December 2017.



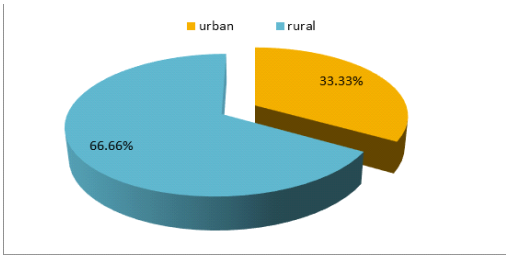
Graph No.1 Age wise distribution of Peripartum Hysterectomy

In present study, it was found that the incidence of Peripartum Hysterectomy was highest i.e. 8 cases (44%) in the age group of 26-30 years and least i.e. one case (6%) in the age above 35 years.



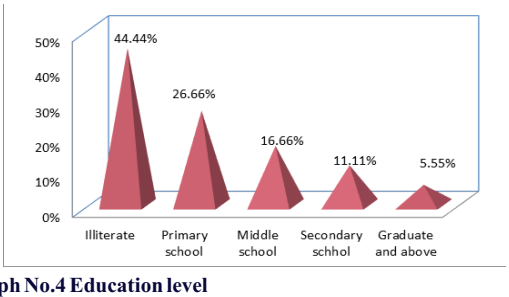
Graph No.2 Distribution in relation to booked/unbooked status:

In present study maximum no. of cases of Peripartum Hysterectomy were unbooked i.e. 13(72.22%) and booked were i.e. 5 cases.



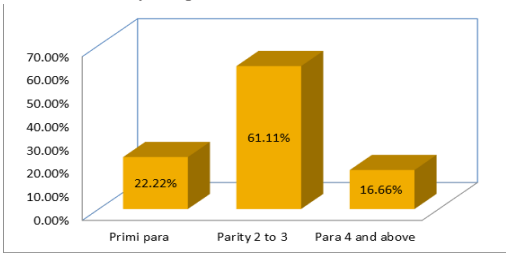
Graph No.3 Distribution In Relation To Residence Area (Rural / Urban Cases)

Most of the cases in present study were from rural area i.e. 12 cases (66.66%) and from urban area were i.e. 6 cases (33.33%).



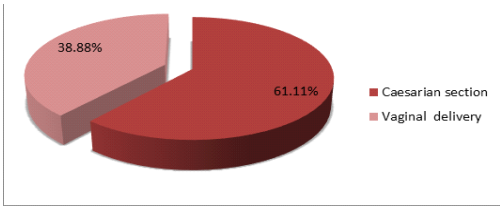
Graph No.4 Education level

In present study illiterate patient were i.e.8 cases (44.44%) and graduate & above only one patient.



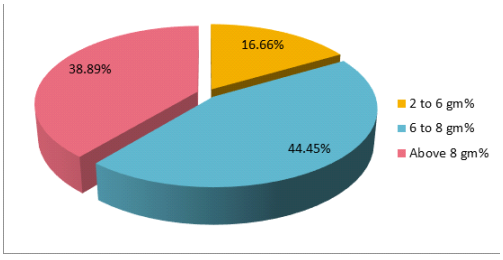
Graph No.5 Parity –Wise Distribution Of Cases

In present study i.e. 11 cases (61.11%) of patient were para 2 and para 3. The three cases (16.66%) were para 4 and above



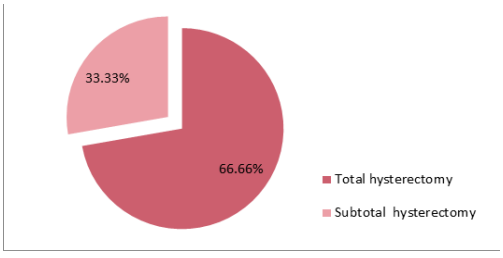
Graph No.6 Mode of delivery in cases of Peripartum Hysterectomy

The Peripartum Hysterectomy In present study i.e. 11 (61.11%) cases followed after caesarian section, whereas 7 (38.88%) cases ended in peripartum hysterectomy following vaginal delivery.



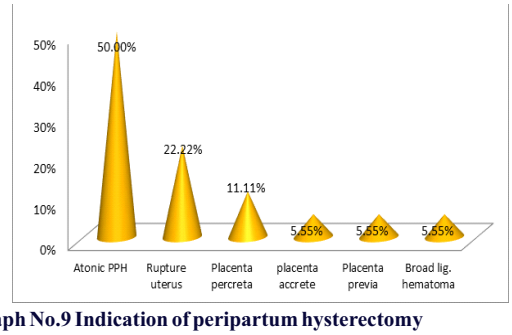
Graph No.7 Hemoglobin level at the time of admission

In present study the Hemoglobin level at the time of admission, 6 to 8 gm% in 8 cases (44%) and above 8 gm% in 7 cases (39%).



Graph No.8 Type of surgery

In present study total hysterectomy was performed were i.e. 13 (66.66%) cases and subtotal hysterectomy were i.e. 5(33.33%) cases.

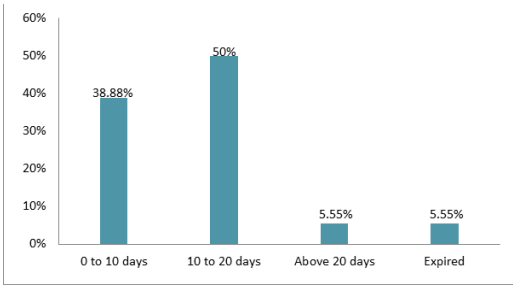


Graph No.9 Indication of peripartum hysterectomy

In present study the most common indication for peripartum hysterectomy was Atonic PPH i.e. 9 (50%) cases followed by rupture uterus i.e.4 cases (22.22%).

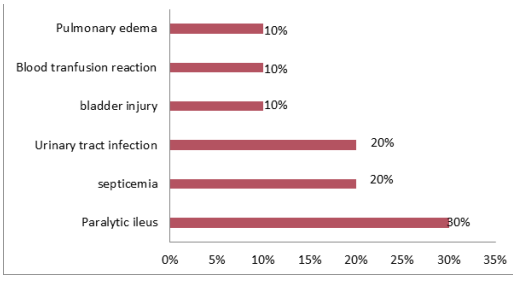
Protocols for managing postpartum hemorrhage

1. Assemble team consisting of obstetrician anesthetist, nursing staff.
2. Establish large bore intravenous access and initiate uterine massage.
3. Catheterization.
4. Administer oxygen by face mask.
5. Fluid resuscitation: infuse crystalloid.
6. Tranfusion blood and blood products.
7. Identify cause of bleeding.
8. Administer uterotonics drugs to reverse atony.
9. Perform laparotomy if all measure fail.
10. Perform hysterectomy : hysterectomy is the last resort.



Graph No.10 Hospital stay

In present study half of patient stayed in hospital for >10 days. Prolonged stay in hospital due to wound sepsis, anemia, and febrile illness. One patient expired due to severe anemia and cardiac arrest.



Graph No.11 Post operative complication

The most common post operative complication was paralytic ileus 30% followed by septicemia 20% and urinary tract infection 20%.

CONCLUSION

- Peripartum hysterectomy, though uncommon, remains a challenging but life saving procedure in obstetrics.
- Its indication in modern obstetrics are changing and still emerging.
- Common causes of peripartum hysterectomy found in our institute were:- uterine atony (50%), uterine rupture(22%), placenta adherent (17%) etc.
- Predisposing factors were poor antenatal care, anemia, multiparity etc.
- Antenatal diagnosis of low lying and adherent placenta, minimizing the CS rate, proper and timely management of third stage of labor and emergency preparedness are imperative to minimize the chances of Peripartum hysterectomy and improving the outcome.

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