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Retrospective Study of Emergency Obstetric Hysterectomy and Maternal and Perinatal Outcome

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Abstract: ***Background: Emergency obstetrics hysterectomy, although rare in modern obstetrics, remains a life-saving procedure in cases of severe haemorrhage. Purpose of this study was to evaluate the incidence, risk factors, indications, outcomes, and complications of obstetrics hysterectomy performed in our hospital between June 2015 and June 2017. Methods: The medical records of 36 patients who had undergone obstetrics hysterectomy, between June 2015 and June 2017 in civil hospital,Ahmedabad, were scrutinized and evaluated retrospectively. Maternal age, parity, gestational age, characteristics of the present pregnancy and mode of delivery, indications of hysterectomies, operative complications, postoperative conditions, and maternal and neonatal outcomes were noted and evaluated. Results: There were 36 obstetrics hysterectomies out of 15,682 deliveries, a rate of 0.22 per 1,000 deliveries. Twenty seven hysterectomies were performed after caesarean delivery and nine after vaginal delivery. The most common indication for hysterectomy was uterine atony 36% (13/36), followed by rupture uterus 30.5% (11/36), placenta previa 13.8% (5/36), retained placenta 13.8%(5/36) and placenta percreta 5% (2/36). We had five maternal deaths. Conclusion: Obstetrics hysterectomy is a necessary life- saving procedure. Uterine atony was one of the leading causes of emergency obstetrics hysterectomy from my study. Other risk factors were massive haemorrhage due to abnormal placentation, placenta previa and uterine rupture associated with multiparity and previous Caesarean section. Availing of proper antenatal care, identification of high risk cases and timely referral to proper institution can avoid the complications resulting from massive haemorrhage, abnormal placentation and rupture uterus. Emergency obstetrics hysterectomy being the treatment of choice in some of these cases can thereby reduce maternal morbidity and mortality.***

Keywords: obstetrics hysterectomy, placenta percreta, uterine atony

1. Introduction

Emergency obstetric hysterectomy in obstetrics practice is rising due to increase in the cesarean rate. The indications are mainly those in which the life of mother is threatened by unrelenting hemorrhage or rupture of uterus. With improved technique and availability of powerful broad spectrum antibiotics and blood transfusion facilities, it is affectively used as life saving measure when all other means have failed. In addition it is a better way to deal with atonic PPH. The decision to resort to it is difficult since the women's reproductive capacity is sacrificed, but as a life saving measure one has to. The incidence varies from center to center depending upon the obstetrics facilities at the peripheral medical center and the peripheral area to which that referral hospital caters to. A review of thirty six cases was done and evaluated.

2. Aims and Objectives

- To evaluate the incidence, indications, risk factors, complications associated with obstetrics hysterectomy
- To implement methods to reduce maternal mortality and morbidity
- To assess methods to avoid complications related to obstetrics hysterectomy
- To improve maternal health by timely intervention

3. Materials and Methods

Thirty six patients who had undergone obstetric hysterectomy, between June 2015 and June 2017 in civil hospital, B.J medical college were scrutinized and evaluated retrospectively.

Each case was analyzed in detail with emphasis on:

- Maternal age,
- Parity,
- Gestational age,
- Characteristics of the present pregnancy and mode of delivery,
- Indications of hysterectomies,
- Operative complications,
- Postoperative conditions, and
- Maternal and neonatal outcomes.

4. Results

- There were 36 obstetrics hysterectomies out of 15,682 deliveries, a rate of 0.22 per 1,000 deliveries.
- Twenty seven hysterectomies were performed after cesarean delivery and nine after vaginal delivery.
- The most common indication for hysterectomy was uterine atony 36% (13/36), followed by rupture uterus 30.5% (11/36), placenta previa 13.8% (5/36), retained placenta 13.8%(5/36) and placenta accreta 5% (2/36).
- We had five maternal deaths.

Table 1: Incidence

Statical Data	Number
Vaginal deliveries	11265
Caesarean section	4417
Obstetric hysterectomy	36
Incidence of Obstetric hysterectomy	0.22

Table 2: Relation to Parity

Parity	No of Patients	Percentage (%)
1	2	5.5%
2	9	25%
3	11	30.5%
4	6	16.7%
>5	8	22.3%

Table 3: Relation to Age

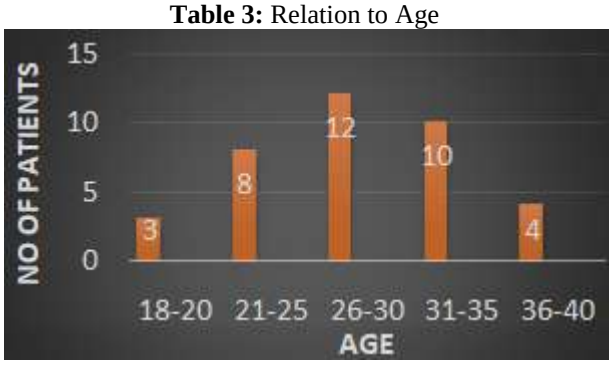


Table 4: Relation to Gestational Age

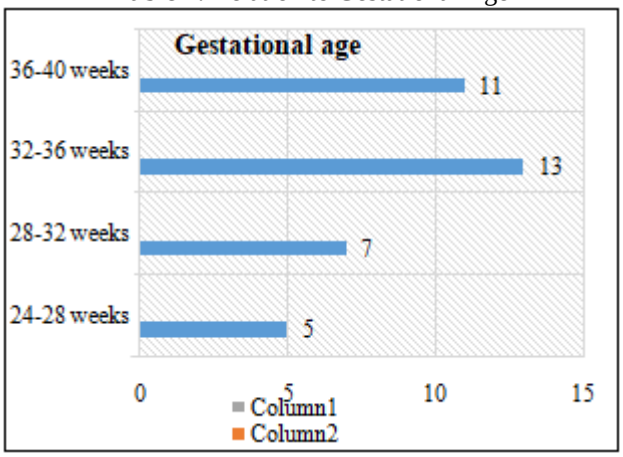


Table 5: Indication of Emergency Obstetric Emergency

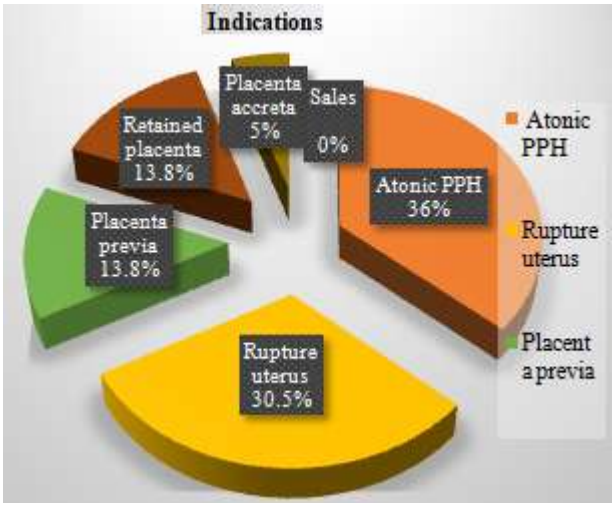


Table 6: Post Operative Complications

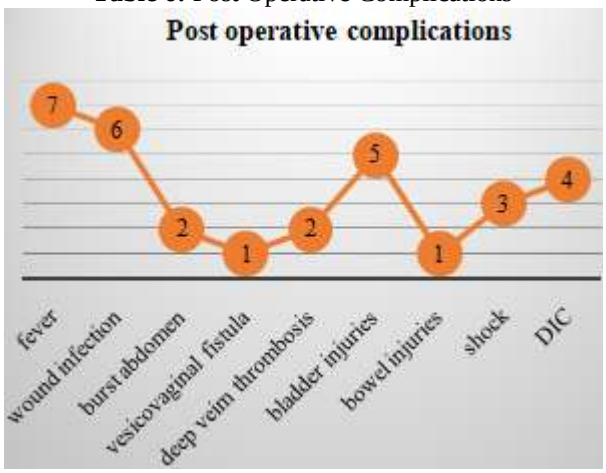
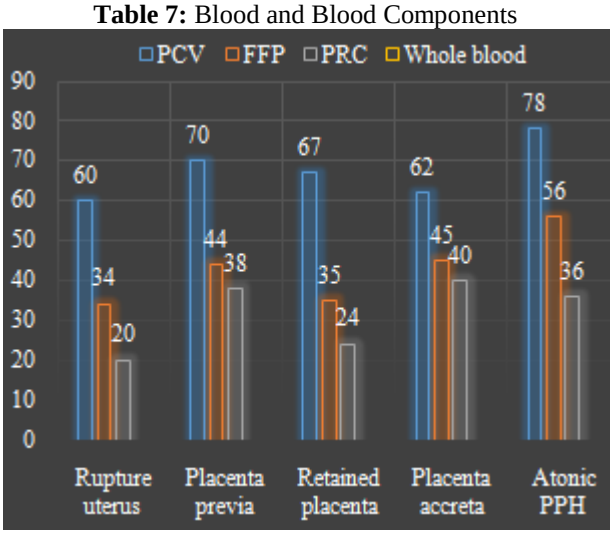


Table 7: Blood and Blood Components



5. Observation and Discussion

- There were a total of 15,682 deliveries, out of which 11,265 were vaginal deliveries, and 4417 were cesarean section from June 2015 to June 2017. during this same period, there were 36 obstetric hysterectomies.
- The incidence was 0.22%
- The ages of women ranged from 21 to 40 years with a mean of 30.5 years. The highest frequency was in the 26-35 years age group and constituted about 61% cases.
- The parity of the patients ranged from 1-11. only 2 women were primiparas. The highest frequency was in those who were para 3 to 5 and together constituted 69%
- Twenty nine(80.5%) cases were unbooked and only seven(19.4%) were booked, who had pregnancy complications like placenta previa, placenta accreta and atonic PPH.
- The most common indication was atonic PPH (36%), followed by uterine rupture (30.5%), placenta previa (13.8%), placenta accreta (5%), retained placenta (5%) .
- All conservative measures were tried in almost all cases of atonic PPH. Risk factors for atonic PPH were placenta previa in 3 cases, grand multiparty in 5 cases, secondary PPH in 2 cases, placenta accreta in 2 cases, abruption in one case. Out of 13 cases of atonic uterus, only five cases of atonic PPH developed after vaginal delivery and rest eight after cesarean delivery.

- Out of eleven cases of uterine rupture, five had previous scar rupture, three were grand multipara and two came in obstructed labor.
- Out of 36 cases, subtotal hysterectomy was performed in 31 cases and total hysterectomy in 5 cases.
- Exploratory laparotomy was done in one case for burst abdomen, additional surgical procedures included bladder repair, ureteric exploration and colostomy in one case.
- Broad spectrum antibiotics were given to all cases. Almost all patients required 3 to 6 units of blood transfusion.

Maternal Outcome

- Seven cases had febrile morbidity, five had bladder injuries, six had wound infection, two had burst abdomen, three had hemorrhagic shockand four developed DIC.
- There were five maternal deaths, three because of disseminated intravascular coagulation, one because of septicemic shock and one because of acute renal shutdown.

Perinatal Outcome

- There were thirteen perinatal deaths, ten were stillbirth and three newborns with low Apgar score died within seven days.
- Six babies had NICU admissions and recovered after ten to fifteen days of admission.

6. Conclusion and Implications

In cases of atonic PPH, when bilateral uterine artery ligation, Internal iliac artery ligation and intra uterine packing fails, it may be a little late as the patient goes into shock because of hemorrhage or develop DIC which is rather difficult to manage. In such cases timely intervened obstetric hysterectomy has given the best post-operative results reducing both maternal morbidity and mortality.

In cases of rupture uterus, timely decision of a cesarean section in previous CS if need be and early diagnosis and intervention in cases of obstructed labor, occurrence of rupture can be avoided which will not only reduce maternal morbidity and mortality but also perinatal morbidity and mortality.

The measures to be adopted to reduce incidence of obstetric hysterectomy, maternal morbidity and mortality, and to improve the fetal outcome are -

- Provision of adequate antenatal health services,
- Timely identification of high-risk cases,
- Public awareness,
- Interlinked close relationship between primary health services and tertiary hospitals,
- Early referral with backup system,
- Improvement in existing health facility in a teaching hospital with involvement of senior, skilled and experienced personnel in the management of obstetric emergencies

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