



## EMERGENCY OBSTETRIC HYSTERECTOMY – ANALYSIS IN TERTIARY CARE HOSPITAL AND ITS ROLE IN MODERN OBSTETRICS

### Gynaecology

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### ABSTRACT

**OBJECTIVE:** To study the incidence ,age, indications ,type of hysterectomy, maternal morbidity and mortality of obstetric hysterectomy cases in a tertiary care centre.

**METHOD:** A prospective observational study of women undergoing emergency obstetric hysterectomy in Govt. Rajaji Hospital , Madurai from October 2017 to September 2018.

**RESULTS:** 27 cases of obstetric hysterectomy performed over a year at Govt Rajaji Hospital , there were 13,142 deliveries giving an incidence of 0.20% . Most of the cases were multigravida , the incidence following Normal vaginal delivery 0.141% and for caesarean hysterectomy is 0.316 % . The most common indication for obstetric hysterectomy being ATONIC PPH (17 cases ) followed by rupture uterus (5 cases) . Most common morbidity being fever and wound infection . There were mortality in 3 cases (11.1%).

**CONCLUSION:** Emergency obstetric hysterectomy still remains a lifesaving procedure in modern obstetrics .

### KEYWORDS

OBSTETRIC HYSTERECTOMY, ATONIC PPH, RUPTURE UTERUS ,PLACENTA ACCRETA.

### INTRODUCTION

Obstetric hysterectomy is defined as extirpation of the uterus either at the time of caesarean section or following vaginal delivery, or within the puerperium period. It is usually performed in life-threatening obstetric haemorrhage. The main indications viz., uncontrolled Postpartum haemorrhage<sup>4</sup>, rupture uterus, adherent placenta, sepsis . Planned obstetric hysterectomy can be performed in conditions like placenta accrete, invasive molar pregnancy and pregnancy with carcinoma cervix. The incidence of obstetric hysterectomy varies, it has come down in the recent days with effective management of obstetric emergencies and identifying the high risk cases at the earliest and management is planned accordingly . Conservative methods in treatment of atonic PPH in low resource settings includes medical management with drugs ( oxytocin, misoprostol, PG F2 alpha), condom catheter balloon, Bukri balloon. Conservative surgeries like uterine artery ligation, B lynch suture and internal iliac artery ligation can be followed. But in few cases the obstetric hysterectomy remains as a last resort to save the life of the mother<sup>3</sup>. Advanced modality like uterine artery embolization can be done if intervention radiology is available.

### METHODS AND MATERIALS

This is a prospective study done over a period of one year at Govt . Rajaji hospital Madurai. Inclusion criteria : all women who underwent hysterectomy after 24 weeks of gestation during peripartum or within puerperium (42 days) are included in the study. There were 27 cases of obstetric hysterectomy in this study done from October 2017 to September 2018. The study analysis includes age , parity of the patient, incidence, indications, type of hysterectomy , complications, maternal morbidity and mortality following obstetric hysterectomy

### RESULTS

The incidence rate of obstetric hysterectomy at Govt Rajaji hospital Madurai was 0.20% this incidence rate following vaginal delivery was 0.141 % and following caesarean section was 0.316%

**TABLE-1 Incidence of emergency obstetric Hysterectomy in GRH**

|                            | Total No of deliveries | No of obs. hysterectomy | Percentage |
|----------------------------|------------------------|-------------------------|------------|
| Total live birth           | 13142                  | 27                      | 0.20       |
| Total vaginal delivery     | 6350                   | 9                       | 0.141%     |
| Instrumental               | 642                    | 1                       | 0.016      |
| Assisted breech deliveries | 114                    | Nil                     | Nil        |
| Total caesarean section    | 5370                   | 17                      | 0.316%     |

**AGE:** the incidence of obstetric hysterectomy was more common in age groups between 25 – 30 years. The lowest age limit in which obstetric hysterectomy was performed was 21 and upper age limit was 34.

**TABLE-2 Age Distribution**

| Age of the patient | Number of cases | Percentage % |
|--------------------|-----------------|--------------|
| 21- 24             | 6               | 22.2         |
| 25 – 30            | 19              | 70.37        |
| 30 – 35            | 2               | 7.40         |
| 35- 40             | Nil             | Nil          |

**Parity :** the incidence of obstetric hysterectomy increases with parity the incidence was more with higher order of birth

**TABLE-3 Parity :**

| Obstetric score | Number | Percentage % |
|-----------------|--------|--------------|
| Primipara       | 9      | 33.3         |
| Multipara       | 18     | 66.6         |

**Booking :** the booking status of patients who underwent obstetric hysterectomy , a total of 5 cases were unbooked and those cases were a case of multiparous women.

**Indication:** Atonic PPH (17 cases – 62.9%) was the most common indication for which obstetric hysterectomy was done followed by rupture uterus (5 cases-18%), placenta previa/accreta (3 cases-11%), postlscs sepsis (1 case-3%). one case of obstetric hysterectomy following Traumatic PPH – colporhexis (3%) was documented . Most of cases underwent subtotal hysterectomy<sup>18</sup> only 4 cases of Total hysterectomies were documented . All the patient were admitted in MICU/IRCU , patients were started on higher antibiotics and received adequate blood transfusion . Most of the patients fared well . Few patients had fever (44%), 2 patients had wound infection for which the culture and sensitivity done and treated accordingly . Two patients had bladder injury which was identified intraoperatively and repair was done . There were 3 cases of maternal mortality of the three cases two patients were referred from other hospitals . Cause of death being haemorrhagic shock with multiorgan failure.

**TABLE-4 Maternal Complications**

| Maternal complications | Number | Percentage % |
|------------------------|--------|--------------|
| Fever                  | 12     | 44.4%        |
| Sepsis                 | 1      | 3.7%         |
| DIC                    | 3      | 11.1%        |
| Relaparotomy           | 3      | 11.1%        |
| Bladder injury         | 2      | 7.4%         |
| Acute renal failure    | 4      | 14.8%        |
| Mortality              | 3      | 11.1%        |

### DISCUSSION

The incidence of obstetric hysterectomy in our institution was 0.20 % which was similar to other studies gupta et al the incidence was 0.26% and similar to China (0.22%), Pakistan (0.27%) koreal et al the

incidence was 0.18%. Incidence in Columbia (0.8%), Nigeria<sup>6-9</sup> (0.5%). the incidence rate being high is due to the fact that our institution is a referral centre. Incidence of obstetric hysterectomy in developed countries like America and Europe is 1 in 2000 deliveries<sup>10</sup>.

The incidence of obstetric hysterectomy following caesarean section is high this is because of the increasing incidence of section in the recent days. A very high trend of obstetric hysterectomy following caesarean delivery is seen in the study of Praneshwari Devi et al<sup>4</sup> and of Pawar

The indication for which obstetric hysterectomy was done was Atonic PPH followed by LSCS scar rupture uterus, as the second most common cause this is similar to study by Agashe and Marathe<sup>5</sup> also, PPH was the commonest indication (60%)<sup>11-17</sup>. Ruptured uterus is the second most common indication in our study accounting for 36.58%. Mortality rate following obstetric hysterectomy was 11.1% this was similar with other studies

## CONCLUSION

Obstetric hysterectomy is done as a life saving procedure the incidence can be brought down by giving a proper antenatal care, proper Intrapartum management, AMTSL, early referral to higher centres. Despite high chance of intraoperative and postoperative complication Emergency obstetric hysterectomy remains a potential life saving procedure in developing countries and low resource setting where intervention radiology will not be available for uterine artery embolization.

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