



## ORIGINAL ARTICLE

# Role of Emergency Hysterectomy in Modern Obstetrics

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## Abstract

A retrospective study was done to estimate prevalence, indications and complications of emergency hysterectomy done for various obstetric indications over two years was carried out. There were 37549 confinements during study period from April 2006 to Aug 2008. Out of this 27213 (72.4%) delivered vaginally and 10336 (27.5%) by Cesarean section. 80 emergency hysterectomies were done, incidence being 2.13 /1000 births. Mean age was 30.5 years. Majority (75%) were from rural areas. Maximum cases were para 2-4. Most common indication for emergency hysterectomy was uterine rupture (40%) followed by atonic PPH (28.75%). Placenta previa (9%). Secondary PPH (6.25%), broad ligament hematoma (6.2%) placenta accreta & increta (2%). fibroid with bleeding (3.7%). Couvelaire uterus (2.1%) and obstructed labour with septicemia (1.2%). Majority of uterine rupture cases were late referrals from rural areas. Out of 32 cases of rupture uterus 20 were with previous LSCS and 12 were multipara. Maternal mortality was 2.5% and the cause of death was related to irreversible shock and DIC. Identification of high risk cases, early referral and procedures like internal iliac artery ligation can reduce the incidence of Emergency Hysterectomy

## Key Words

Emergency Hysterectomy, Obstetrical Surgery, Obstetrics Complications

## Introduction

Emergency hysterectomy is an indispensable part of the obstetricians' armamentarium (1,2). In no other gynecological or obstetrical surgery is the surgeon in as much a dilemma as when deciding to resort to an emergency hysterectomy. On one hand, it is the last resort to save a woman's life and on the other hand, her reproductive capability is sacrificed. Many times it is a very difficult decision and requires good clinical judgment.

First documented Cesarean hysterectomy was performed by Horatio Storer in 1869. Originally the operation of emergency hysterectomy was performed because of life threatening sepsis after prolonged labour, but by the 1950s was being undertaken for the minor indications as sterilization and fell into disrepute. But today main indications of emergency hysterectomy are uncontrollable obstetrical hemorrhage, rupture uterus, placenta praevia and placenta accreta. Emergency

hysterectomy is a life saving procedure in intractable obstetrical hemorrhage.

## Material and Methods

A retrospective record analysis of emergency obstetrics hysterectomy was carried out in SMGS hospital associated to Govt. Medical College Jammu over a period from April 2006-Aug 2008.

## Results

There were 37549 confinements during study period. Out of this 27213(72.4%) delivered vaginally and 10336 (27.5%) by cesarean section. 80 Emergency hysterectomies were done incidence being 2.13/1000 deliveries. A total of 25% patients were from urban area while 75% belongs to rural areas (*Table-1*). Maternal Characteristics: Age Fifty eight percent of the women were in the age group of 26-35 (*Table 2*). Maximum number of cases were para 2-4, the reason for which

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may be due to the fact that in these cases labour is considered easy and hence there is reluctance to receive antenatal and intranatal care. There were 3.7% primigravida who underwent emergency hysterectomy (Table-3). The most common indication for emergency hysterectomy was rupture of the uterus (40%). All the cases being referrals from rural areas, followed by atonic PPH (28%), placenta previa (9%).

In 35% cases subtotal hysterectomy was carried out whereas 65% had total abdominal hysterectomy. Ovarian conservation was possible in 68% cases. However, in 20% uni and 12% of cases bilateral salpingo oophorectomy was done. Majority of patients required blood transfusion but post operative problems were few. The commonest post operative complication was fever 30% (Table-4)

**Complications:** Majority of patients required blood transfusion but operative problems were few. The

commonest post operative complication was fever followed by wound infection chest infection and urinary tract infection. In our study there was one incidental cystotomy in a patient with previous two cesarean sections. This injury was repaired without complications. Another patient who had to undergo emergency hysterectomy because of prolonged obstructed labour developed vesicovaginal fistula which was repaired after 3 months. Maternal mortality was 2.5% in present study and perinatal mortality 30% (Table-5).

### Discussion

Cesarean hysterectomy has undergone tremendous change, both in terms of the indications and frequency of the procedure. Knowledge of this operation and skill at its performance saves lives in catastrophic rupture of the uterus or intractable PPH.

Incidence of emergency hysterectomy in the present study was 2.13/1000 deliveries which is on the higher side than that in many other studies (1-3) because our institute is the biggest referral centre of the area and there are frequent referral from rural areas. Up to 58% of the women were in the age group of 26-35 years. Maximum numbers of cases were Para 2-4 the reason

**Table 1. Prevalance of Emergency Hysterectomies**

Total Number of deliveries	37549
Total number of vaginal deliveries	27213
Total number of cesarean deliveries	10336
Total number of emergency hysterectomies	80
Incidence of Emergency hysterectomies	2.13/1000
Urban	25%
Rural	75%

**Table 3. Party Distribution**

Party	Number of patients
1	3
2	23
3	25
4	19
5 and above	10

**Table 5. Complications and post operative morbidity**

Causes	No. of cases
Febrile Morbidity	25
Wound infection	18
Chest infection	8
Urinary tract infection	8
Bladder injury	2
Late	
Cervical discharge	10
Cyclical bleeding	4
Pain from adherent ovaries	2

**Table 2. Age wise distribution of E. Hysterectomies**

Age (Years)	Number of patients	Percentage
20-25	18	22.5
26-30	24	30
31-35	23	28.75
36-40	15	18.75
Total	80	100

**Table 4. Indications for Emergency Hysterectomy (n=80)**

Indications	Number of patients	%age
Uterine rupture	32	40
Uterine atony	23	28.7
Placenta Previa	7	9
Placenta accrete / Increta / Percreta	2	2.5
Secondary PPH	5	6.2
Ooavelaire uterus	2	2.5
Broad Ligament Hematoma	5	6.2
Obstructed labour with septicemia	2	2.5
Fibroids with bleeding	2	2.5



for which may be due to the fact that in these cases labour is considered easy and hence there is reluctance to receive antenatal and intranatal care (4-5).

In our study patients who underwent emergency hysterectomy belonged more often to rural area than to an urban location (6). The most common cause of emergency hysterectomy was rupture uterus (40%) followed by uterine atony (28.7%) and placenta praevia (9%). Majority of rupture uterus cases were late referrals from rural areas. Gupta *et al* (7) showed an incidence of 42% uterine rupture slightly higher than our study. Chestnut *et al* (8) found that the major indication for cesarean hysterectomy was rupture followed by uterine atony and placenta accreta. Clark *et al* (9) reported uterine atony to be most common cause of emergency peripartum hysterectomy.

The mortality amongst our patients was 2.5%. Sturdee and Rushton reported no mortality in their series of 47 cases. Ambiyee and Venkatraman reported maternal mortality of 9.3% (10). The lower threshold for emergency hysterectomy in our study explains the lower morbidity and mortality, the operation being performed well before the patient's condition was too critical to withstand the risks of anesthesia or surgery. There is a relationship between the decisions to perform the hysterectomy, the amount of blood loss and the likelihood that the hysterectomy will be complicated by coagulopathy, severe hypovolemia, tissue hypoxia, hypothermia and acidosis which further compromises the patient status. Proper timing and meticulous care may reduce or prevent maternal complications.

While reviewing recent literature on the subject the study of Obiechina *et al* (11) suggested high incidence (6.2 per 1000 deliveries). The maternal case fatality rate was 31.0%, while perinatal mortality was 44.8%. Placenta Previa has emerged as its primary indication.

Similarly, in another study (12) overall incidence of emergency Hysterectomy reported was 0.364 per 1000 deliveries. There were two maternal deaths due to coagulopathy and Pulmonary embolism. Two stillbirths (6.6%) and 2 early neonatal deaths (6.6%) were recorded in the study.

### Conclusion

Today when obstetric surgery is usually performed to benefit the fetus, it should not be forgotten that emergency surgery to save the mother may still be necessary. Emergency hysterectomy is life saving procedure in

intractable obstetrical hemorrhage. The decision to perform it should be taken early and preferably by a senior obstetrician. Instruction in emergency hysterectomy should be included in all residing training programs. Particular attention should be directed towards developing and refining surgical techniques in an effort to reduce the incidence of urinary tract injuries and hemorrhagic complications. Previous cesarean delivery, uterine atony, placenta praevia and accreta were identified risk factors for emergency hysterectomy. Identification of high risk cases, early recognition of complications, timely referral and procedures like Internal Iliac artery ligation can reduce the incidence of emergency hysterectomy.

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