

Original Research Article

## **Incidence of Emergency Peripartum Hysterectomy in a Tertiary Care Hospital of Uttarakhand**

**Dr. Godawari Joshi<sup>1</sup>, Dr. Mavish Jahan<sup>2</sup>**

<sup>1</sup>Associate Professor, <sup>2</sup>Post Graduate- Final year, Depart. Of obstetrics and gynaecology, Government Medical College, Haldwani, Uttarakhand-263139, India

### **\*Corresponding author**

Dr. Mavish Jahan

Email: [mavish.jahan@gmail.com](mailto:mavish.jahan@gmail.com)

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**Abstract:** Emergency peripartum hysterectomy (EPH) is an uncommon obstetric procedure, usually performed as a life-saving measure in cases of intractable obstetric haemorrhage. In modern obstetrics, the overall incidence of EPH is 0.05%, but there are considerable differences in incidence in different parts of the world, depending on modern obstetric services, standards and awareness of antenatal care. The objectives of this retrospective case series study are to examine the incidence, risk factors, indications, outcomes and complications of EPH performed in a tertiary hospital of Kumaon region, Dr. Sushila Tiwari Hospital and Medical college, between January 2013 and June 2015. Medical and pathological records of the 14 patients who had undergone emergency hysterectomy provided the incidence of 2.03 per 1,000 deliveries (0.2%). The most common indication for EPH was uterine rupture, and placenta previa and/or accreta in 38.40% cases each and 30.76% cases of uterine atony. There was one case of intraoperative bladder injury and one mortality due to sepsis. Lack of proper antenatal visits, lack of awareness, delayed seeking of hospital facilities are the major causes of the morbidity of these patients. The risk factors associated with emergency peripartum hysterectomy should be identified antenatally and managed before the complication arises.

**Keywords:** Emergency peripartum hysterectomy, uterine rupture, placenta previa

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### **INTRODUCTION**

Emergency peripartum hysterectomy (EPH) is an uncommon obstetric procedure, usually performed as a life-saving measure in cases of intractable obstetric haemorrhage. The first caesarean hysterectomy (in 1876 by Eduardo Poro) was an elective procedure which combined caesarean section (c/s) with hysterectomy, but now it is considered primarily an emergency procedure to save the life of a mother in case of massive haemorrhage or any other complication; thus playing a vital role in reduction of maternal mortality worldwide. In modern obstetrics, the overall incidence of EPH is 0.05%, but there are considerable differences in incidence in different parts of the world, depending on modern obstetric services, standards and awareness of antenatal care, and the effectiveness of family planning activities of a given community. The main causes of the uncontrollable haemorrhage necessitating an EPH have changed since the 1980s [1]. Severe postpartum haemorrhage is one of the leading causes of maternal mortality and morbidity and represents the most challenging complication that an obstetrician will face [2]. Uterine atony and rupture have been overtaken by

abnormal placentation in many studies. This is not only because of improved conservative management of uterine atony and a reduced incidence of uterine rupture due to the extensive use of the lower uterine segment incision in preference to the upper uterine segment incision for cesarian section (CS), but also because of an actual increase in the incidence of the morbidly adherent placenta. Other factors that have been associated with EPH include advanced maternal age, multiparity, and multiple gestations.

### **MATERIAL & METHODS**

The objectives of this retrospective study are to examine the incidence, risk factors, indications, outcomes and complications of EPH performed in a tertiary hospital of Kumaon region, Dr. Sushila Tiwari Hospital and Medical College, Haldwani. This study was a case series study. Medical and pathological records of the patients who had undergone emergency hysterectomy following vaginal or cesarian delivery following different indications, between January 2013 and June 2015, in a tertiary teaching hospital, were reviewed retrospectively. Emergency peripartum

hysterectomy was defined as a hysterectomy performed in a life-threatening condition. All deliveries were performed after 28 weeks of gestation, and the hysterectomy was performed shortly (within hours) after delivery. Both medical and surgical modalities were used to control the haemorrhage before hysterectomy.

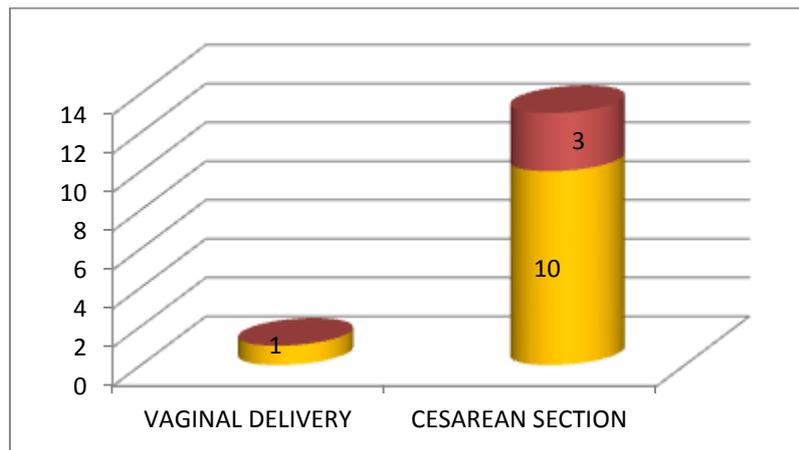
**RESULT**

During the study period, a total of 6890 women delivered. There were 14 emergency peripartum hysterectomies; 92.85% of the EPH were performed after cesarian delivery and 7.15% after vaginal delivery. The majority of women were multiparous (13/14); if there was only 1 primiparous woman. Multiparity and

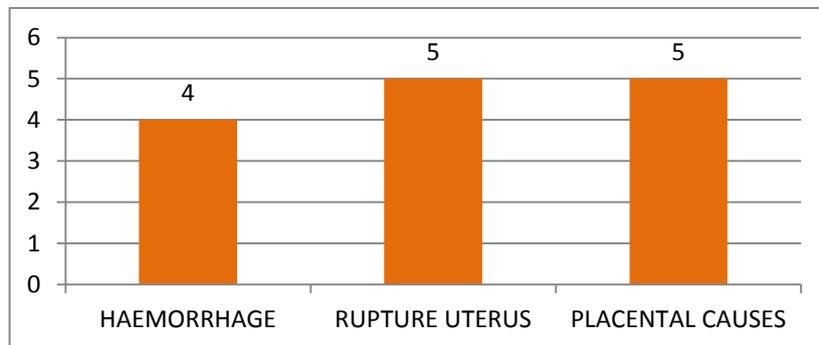
previously scarred uterus was the main risk factors (Table). In relation to caesarean deliveries, 23% were elective and 77% were emergency and 1 patient underwent hysterectomy following vaginal delivery (Fig 1). The fourteen hysterectomies were performed due to intractable obstetric condition that was unresponsive to conservative management, representing an incidence of 2.03 per 1,000 deliveries (0.2%). The most common indication for EPH was 38.40% for uterine rupture (5/13), and 38.40% for placenta previa and/or accreta (5/13); there was 30.76% cases of uterine atonicity. (Fig 2). There was one case of intraoperative bladder injury. There was one maternal death because of infectious postoperative complications with the development of a septic shock (Fig 3).

**Table 1: Showing Major Risk Factors**

| FACTORS RESPONSIBLE     | NUMBER | PERCENTAGE |
|-------------------------|--------|------------|
| Multiparity             | 13     | 92.8%      |
| Previous scarred uterus | 7      | 50%        |
| Obstructed labour       | 2      | 14.28%     |
| Adhered placenta        | 4      | 28.5%      |
| Abruptio placentae      | 1      | 7.14%      |



**Fig 1: Fig showing routes of delivery**



**Fig 2: Showing the main indications of hysterectomies**

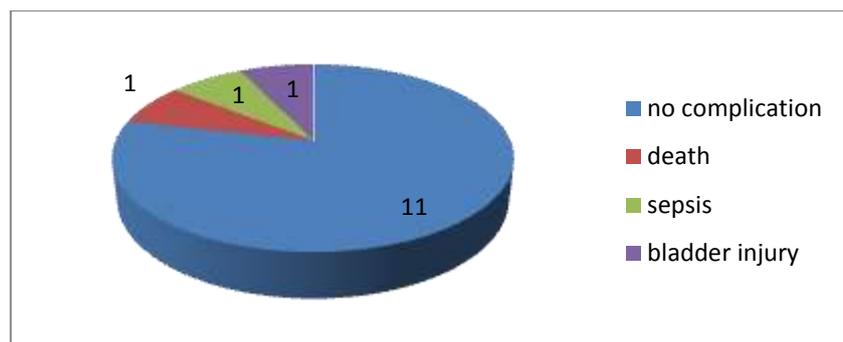


Fig 3: Showing complications

## DISCUSSION

Despite advances in medicine and surgery, postpartum haemorrhage remains one of the leading causes of maternal morbidity and mortality. Peripartum hysterectomy is performed in the treatment of a life-threatening obstetric haemorrhage that cannot be controlled by conventional methods. Traditionally, uterine atony was the most common indication for hysterectomy. Recent studies have indicated that abnormal placentation is replacing uterine atony as the most common indication for EPH. In 1984, Stanco *et al.*; [3] reported that 43.4% of their emergency hysterectomies were done because of uterine atony, while 33.9% were due to placenta previa with accreta. A study from the same institution in 1993 stated that their primary indication was placenta accreta, the problem in 45% of cases, followed by uterine atony, with 20%. Thus emphasising on the changing trends in the etiology.

## CONCLUSION

In this study the major causes of hysterectomies were placental causes and rupture uterus followed by haemorrhage. Lack of proper antenatal visits, lack of awareness, delayed seeking of hospital facilities are the major causes of the morbidity of these patients. The risk factors associated with emergency peripartum hysterectomy should be identified antenatally and the high risk group of women should be delivered by skilled birth attendants or referred to a tertiary care hospital before the complication arises. Proper following of protocols of action, measures that can contribute to reduce the high maternal morbidity and mortality associated to EPH. Also, caesarean delivery should be performed only when exclusively necessary, in appropriate clinical settings and by experienced surgeons when such risk factors are identified. Furthermore long term strategies are needed to raise public awareness regarding family planning, female's education and ensuring gender equality.

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