

## Emergency Peripartum Hysterectomy: “Saving Mother - Sacrificing Womb” (A 3 Year Review)

Dr Priyanka, Dr Indra Bhati,

Corresponding Author: Dr Priyanka

**Abstract: Background:** Emergency peripartum hysterectomy (EPH), although rare in modern obstetrics, remains a life saving procedure in cases of severe obstetric hemorrhage. **Objectives:** To determine the epidemiological factors, incidence, risk factors, indications, outcome and complications of emergency peripartum hysterectomies performed in a tertiary care hospital in RAJASTHAN, INDIA during a 3 yrs period with total deliveries of 65,720. **Method:** The medical records of 60 patients who underwent EPH between June 2014 to June 2017 were reviewed retrospectively. Maternal characteristics and details of present pregnancy and delivery, indication of hysterectomy, operative complications, postoperative conditions and maternal and fetal outcome were evaluated. **Results:** There were 60 EPH out of 65,720 deliveries with a rate of 0.91 / 1000 deliveries. 16 were performed with cesarean deliveries and 25 after vaginal deliveries for atonic and traumatic PPH and abnormal placentation, 19 performed for ante partum or intrapartum rupture uterus. Mean maternal age was 30-35 year, more common in multigravidas. Most common indication was PPH followed by rupture uterus. There were 6 cases with bladder injury and one case with intestinal injury, 54 needed blood transfusion of more than 3 units and internal iliac artery ligation was done in 3 cases. We had 1 maternal death because of septic shock & disseminated intravascular coagulation. There were 20 IUFDs and neonatal mortality occurred in 10 cases. **Conclusion:** Although increasing trends for caesarian section are increasing the incidence of rupture uterus and morbidly adherent placenta in next pregnancy leading to EPH. Still haemorrhage either antipartum, intrapartum or postpartum remains the leading cause of maternal mortality and morbidity and represents the most challenging complication that an obstetrician will face. EPH therefore remains an important procedure for saving mothers.

**Keywords:** Intractable haemorrhage, Peripartum hysterectomy

Date of Submission: 28-02-2018

Date of acceptance: 17-03-2018

### I. Introduction

EPH is an uncommon obstetric procedure, usually performed as a life saving procedure in cases of intractable hemorrhage. {1-3} The first cesarean hysterectomy with successful maternal and fetal outcome was performed in 1876. {4} The incidence of EPH in literature is reported as 0.24 - 5.09 per 1000 deliveries. In modern obstetrics, the overall incidence is 0.05%, but there are considerable differences in different parts of the world, depending on obstetric services, standards and awareness of anti-natal care and the effectiveness of family planning activities of a given community.

The incidence of Severe PPH is 6.7 /1000 deliveries worldwide. Hemorrhage is the major cause of maternal mortality and morbidity and represents the most challenging complication of an obstetrician's life where despite all conservative efforts, emergency peripartum hysterectomy remains the last option. [5,6]

The main cause of intractable hemorrhage necessitating an EPH has changed since 1980s. Uterine atony has been overtaken by abnormal placentation and rupture uterus in many studies. This is not only because of improved conservative management of uterine atony but also because of an actual increase in incidence of morbidly adherent placenta and rupture uterus due to rising rates of cesarean section and increased obstetric facilities. Studies have shown that previous cesarean increases the risk of rupture uterus and abnormal placentation and in turn EPH. Other factors that are associated with EPH are number of previous cesarean sections, advanced maternal age, multiparity, multiple gestation and gestational diabetes {7-11}

### II. Objectives

The objectives of this retrospective study were to analyze the incidence, risk factors, indications, outcome and complication of EPH performed in a tertiary care hospital between June 2014 to June 2017 and to compare results with other reports of literature. This study also highlights the lack of availability and utilization of services, identify avoidable factors, and stress the need to organize health care services so as to improve maternal and fetal outcome.

### III. Material And Method

This is a retrospective study conducted in a tertiary care hospital of WESTERN RAJASTHAN, INDIA . Medical records of patients who had undergone EPH following either vaginal deliveries or with caesarian section between june 2014 to june 2017 were reviewed . All deliveries beyond 24 weeks of gestation and hysterectomies performed shortly after deliveries or with cesarean section were included in the study.

All cases of EPH performed either for uterine atony or rupture uterus either after vaginal delivery or in previous caesarian sections or abnormal placentation that presented to hospital whether diagnosed in hospital or referred from periphery were included in the study.

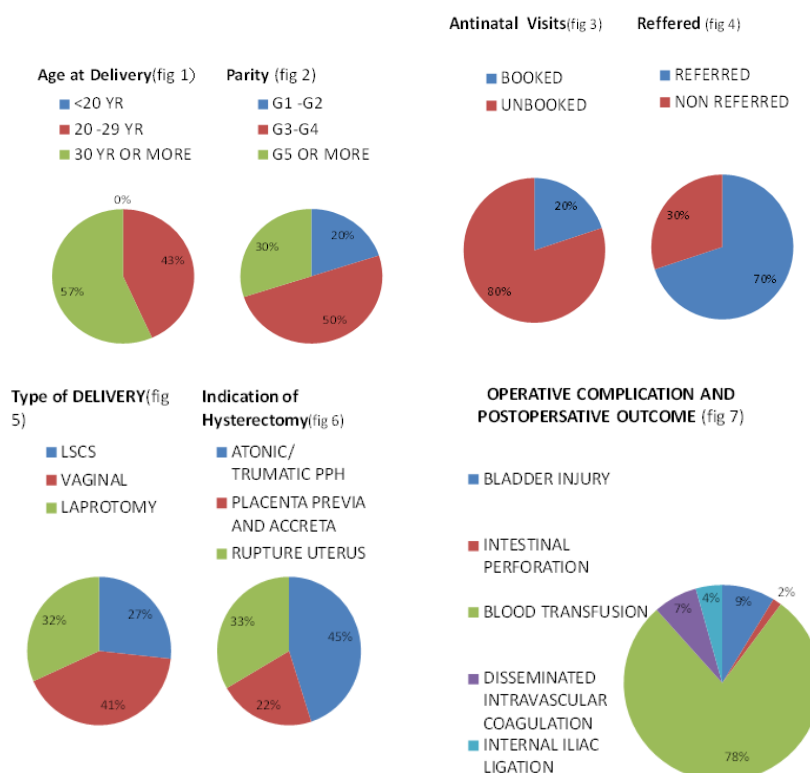
Information obtained from the medical records included demographic details , previous obstetric history , details of current pregnancy , delivery & postpartum haemorrhage , indication for hysterectomies and outcome of mother and fetus.

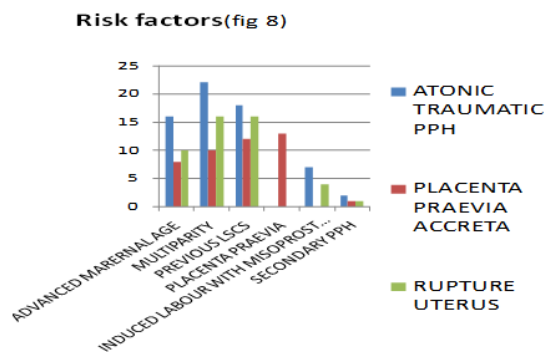
Peripartum hysterectomy is defined as any hysterectomy performed within 24 hr of delivery of fetus.. The datas were analysed using simple rates and proportions.

### IV. Results

During the 3 yr study period, the total no of deliveries in our institute were 65,720 and there were 60 EPH done due to different causes. Maternal characteristics and obstetric data are shown in figures 1-4. The mean maternal age was 30 year, majority of patients were between 30 -35 year of age (34/60), others were 20-29 yr, no patient was below 20 yr of age.(fig 1) There were no primipara, 12 were gravida 2, 16 gravida 3 , 14 gravida 4, 8 were gravida 5, 5 patients gravida 6, 3 patients gravida 7 and 2 gravida 9.(fig 2) 48 patients were un- booked and 12 patients were booked at our hospital or at peripheral centres (fig 3) 42 patients were referred from peripheral hospitals. (fig 4) Figure 5 is showing obstetric data according to type of deliveries. In 25 cases , hysterectomy was performed after vaginal delivery which included either for postpartum hemorrhage (atonic or traumatic) or rupture uterus in patients both with previous vaginal delivery or with previous caesarian delivery. In 16 cases caesarian hysterectomy was done, 14 for placenta previa and accreta and 2 for atonic PPH. 19 cases were operated as laprotomy for ruptured uterus followed by extraction of fetus from abdominal cavity & hysterectomy .

Indications for hysterectomy were as shown in fig 6. In 27 cases EPH was done for intractable hemorrhage either intrapartum or postpartum that was either non - responsive to conservative management in form of inj. oxytocin , inj,ergomatrine , inj carboprost , uterine packing , uterine artery ligation and B lynch suture & square sutures or where management of trumatic PPH in form of repair of rupture uterus was not possible due to extensive damage to uterus In 14 cases , caesarian were done for abnormal placentation including either morbidly adherent placenta or placenta praevia followed by PPH and then hysterectomy.





## V. Discusson

Although, advances in obstetrical care and facilities has reduced maternal mortalities but despite all these, intractable hemorrhage is still a leading cause of maternal morbidity, more so in the developing world. All life saving procedures are of wastage untill hemorrhage does not stop which sometimes needs sacrificing the uterus- "THE WOMB" for saving the life of patient "THE MOTHER"

Literature shows incidence of EPH as 0.24 to 5.09 /1000 deliveries . Diversities are due to different level of obstetric facilities in different regions. Incidence in our study is 0.91 / 1000 deliveries i.e 0.09%. our incidence is slightly lower than that of Mukherjee et al.(0.15%){ 15} and Kastner et al (0.14%).{16} and comparable to Praneshwri Devi et al (0.07%){17}

The most common cause of EPH in our study was atonic and traumatic PPH as in the study by Kant and Wadhvani et al(2005){12} Rupture uterus is also a major cause of EPH which is also associated with worse fetal outcome as in the study by Parveen et al.(13)

80% cases were unbooked , which is similar to the study by Allahbadiya and Vadiya{14}signifying the need to strengthen ANCs 57% patients were 30 years or above and 80% were multigravidas showing more association of increasing age and parity with EPH. This reflects the illiteracy, lack of awareness & the unmet need of family planning services in our country.

Being at tertiary care hospital, most of our patients were referred from peripheral hospitals in poor condition when no time remains for conservative management and EPH is the only rescue operation.

As many cases are previous caesarian sections, resulting in rupture uterus in next pregnancy, association of bladder rupture and intestinal perforation comes forward as an important complication

## References

- [1] A.C .Rossai,R. H. Lee, and R. H Chmait, "Emergency postpartum hysterectomyfor uncontrolled postpartum bleeding:a systemic review,"obstetrics and gynecology, vol. 115, no.3,pp.637-644,2010.
- [2] A Kwee,M. L. Bots,G. H. A. Visser, and H. W. Brunise, "Emergency peripartum hysterectomy: a prospective study in the Netherlands," European Journal of Obstetrics Gynecology and Reproductive Biology, vol 124, no. 2,pp.187-192,2006.
- [3] M. E. Akar,E. S. Yilmaz, B. Yuksel, and Z. Yilmaz, "Emergency peripartu hysterectomy,"Eurpian Jpurnal of Obstetrics Gynecology and Reproductive Biology, vol 113, no. 2, pp. 178-181, 2004
- [4] D. W. Sturdee and D. IRushton, "Caesaraen and post-partum hysterectomy 1968-1983," British Jpurnal of Obsretics and Gynaecology, vol.93, no. 3, pp. 270-274, 1986.
- [5] Singhal S,Singh A, Raghunandan C, Gupta U, Dutt S. Ureteric artery embolization: exploring new dimensions in obstetric emergencies. Oman Med J. 2014 Mar;29(3):217-9
- [6] Varghee S, Gokulam N. Al -Abri S. Uterine artery Embolization in Postpartum Haemorrhage: A Case Report. Oman medical J. 2012 Jul;27(2)
- [7] S. Bakhsi and B. A Meyer, "Indication for and outcomes of emergency peripartum hysterectomy: a five year reiew," Journal of Reproductive Medicine for the Obstetrician and Gynecologist, vol 45, no. 9, pp. 733-737, 2000
- [8] T. F , Baskett,"Emergency obstetric hysyerectomy," Journal of Obstetrics and Gynaecology, vol. 23, no.4,pp.353-355,2003
- [9] D. O. Selo-Ojeme, P. Bhattacharjee, N. F. Izuwa-Njoku, and R. A. Kadir, "Emergency peripartum hysterectomy in a tertiary London hospital," Archives of Gynecology and Obstetrics, vol271,no 2, pp 154-159, 2005.
- [10] F. Kayabasoglu, k. Guzin, S. Aydogdu, S. Sezginsoy, L. Turkgeldi, and G. Gunduz, "Emergency peripartum hysrectomy in a tertiary Istanbul hospital," Archives of Gynecology and Obstetrics, vol.278, no. 3, pp. 251-256,2008.
- [11] S. Wu, M. Kocherginsky, and J. U. Hibbard, "Abnormal placentation : twenty year analysis," American Journal of Obstetrics and Gynecology, vol. 192, no. 5, pp.1458-1461, 2005.
- [12] Kant A, Wadhvani K, Emergencyobstetric hysterectomy . J Obste Gynaecol India. 2005;55:132-34
- [13] Praveen . Peripartum hysterectomy –A FIVE YEAR STUDY. J Obstet gynecol India.2008;58:504-6
- [14] Allahbadiya GV, Vadiya P. Obstetric and Gynecol Ind.1991;41:634-7
- [15] Mukherjee P., Mukherjee G, Das C. Obstetric hysterectomy. A reiew of 107 cases J Obstet Gynecol India. 2002;52:34-6
- [16] Kastner ES, Figueroa R, G arry D. Emergency peripartum hysterectomy: experience at a community teaching hospital. Obstet Gynecol India 2002;52:34-6.
- [17] Praneshwri devi RK, Singh D, Emergency obstetric hysterectomy .J ObstetGynecolIndia2004;54:343-5

Dr Priyanka "Emergency Peripartum Hysterectomy: "Saving Mother - Sacrificing Womb" (A 3 Year Review)" IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 17, no. 3, 2018, pp 01-03