



EMERGENCY PERIPARTUM HYSTERECTOMY: A LIFE SAVING PROCEDURE

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Article Received on 11/01/2019

Article Revised on 31/01/2019

Article Accepted on 21/02/2019

ABSTRACT

Emergency peripartum hysterectomy (EPH), although rare in modern obstetrics, remains a lifesaving procedure in cases of severe haemorrhage. Purpose: To determine the incidence, risk factors, indications, outcomes, and complications of EPH performed in a tertiary teaching hospital. **Methods:** The medical records of 10 patients who had undergone EPH, between may 2016 and april 2018, were reviewed retrospectively. Maternal characteristics and characteristics of the present pregnancy and delivery, indications for hysterectomy, intraoperative complications, postoperative conditions and maternal outcomes were evaluated. **Results:** A total of 2576 deliveries conducted, there were 10 cases of emergency peripartum hysterectomy. Rate of 3.8 per 1,000 deliveries was observed. The most common indication being uterine atony (9/10) followed by placenta previa, abnormal placentation. Out of 10 cases 7 hysterectomies were performed following emergency LSCS. 2 following vaginal delivery and 1 after elective LSCS. There was one case of relaparotomy because of post-partum hemorrhage following elective LSCS. No cases of maternal morbidity and mortality. **Conclusion:** Abnormal placentation has become the most common indication for emergency peripartum hysterectomy.

KEYWORDS: Emergency peripartum hysterectomy.

INTRODUCTION

Peripartum hysterectomy is an uncommon emergency surgical procedure performed at the time of delivery or immediate post delivery <24 hours following life threatening intractable hemorrhage.^[1] Severe postpartum haemorrhage was reported to occur in in 6.7/1000 deliveries worldwide and is one of the leading causes of maternal mortality and morbidity. It is one of the most challenging complications faced by obstetricians.^[2] EPH is the most dramatic operation in modern obstetric and is a life saving procedure when all conservative line of management fails to achieve hemostasis.^[3] Specially at tertiary care centers.

In the past most common indications for EPH was uterine atony and uterine rupture.^[1] According to recent reports, abnormal placentation is the most common indication for EPH and it may be because of increase in rate of cesarean birth and curettage in the past two decades. Placenta accreta is strongly associated with placenta previa in a previously scarred uterus because of cesarean section, curettage and also increased maternal age.^[2] Other risk factors includes multiparity, multiple gestation and gestational diabetes.^[3]

Earlier studies on peripartum hysterectomy included hysterectomies done for non emergency situations and

were used for sterilization, defective uterine scar, myomas, other gynaecological disorders. In 1950's and late 1970's^[4] indications for which EPH had to be carried out has changed since 1980's.^[5] Incidence of uterine atony and rupture uterus have reduced because of improved conservative management of uterine atony and preference of lower uterine segment cesarean section.^[6]

EPH is associated with risks and complications like need for massive blood transfusion, anaesthetic complications, coagulopathy, injury to urinary tract, need for relaparotomy if persistent bleeding present, need for ICU admission, febrile morbidity and even mortality.

MATERIALS AND METHODS

This retrospective review was carried out in the Department of Obstetrics and Gynaecology, Shamanur Shivashankarappa Institute of medical sciences, from may 2016 to april 2018. All the patients who underwent Emergency Peripartum Hysterectomy were identified from the labour ward registers, operating room registers. The case files of all patients were reviewed regarding the maternal age, parity, previous history of caesarean delivery, mode of delivery, indications for peripartum hysterectomy and its complications.

RESULTS

A total of 2576 deliveries conducted, there were 10 cases of emergency peripartum hysterectomy. Rate of 3.8 per 1,000 deliveries was observed. The most common indication being uterine atony (9/10) (90%) followed by placenta previa, abnormal placentation. Out of 10 cases 7 hysterectomies were performed following emergency LSCS. 2 following vaginal delivery and 1 after elective LSCS. There was one case of relaparotomy because of post-partum hemorrhage following elective LSCS, patient had PPH in the immediate post operative period and due failed medical line of management and deterioration of vitals patient was taken for emergency

peripartum hysterectomy. Of all the risk factors multiparity was the commonest. In 4 cases uterine artery ligation and B lynch were tried.

As regards the operative and postoperative complications of emergency peripartum hysterectomy, the most common operative complication was massive blood transfusion and ICU admissions, urinary bladder injury 2, while renal failure 2, paralytic ileus 2.(Table). The women stayed in the hospital about 11.984 days on an average and 4.7 days of ICU admission. No cases of maternal morbidity and mortality.

General Characteristics. (Table 1).

Age(Years)	N(10)	Percentage
20-24	6	60%
25-29	3	30%
30-34	0	0
35-40	1	10%
PARITY		
Primi	2	20%
G2	2	20%
G3	4	40%
G4	2	20%
Grand multi	0	0

Risk Factors for Emergency Peripartam Hysterectomy (Table 2).

Risk Factor	N(10)	Percentage
Multiparity	8	80%
Previous LSCS	6	60%
Placenta previa	6	60%
Placenta accrete	4	40%
History of curettage in the past	2	20%

Indications (Table 3).

Placenta previa	7
Atonic PPH	9
Ruptured uterus	0
Placenta accrete	5
Abruptio placenta	2

Mode of Delivery (Table 4).

Vaginal delivery	2
Emergency LSCS	7
Elective LSCS	1

Operative Complications and Post Operative Complications (Table 5).

Maternal mortality	0
Urinary bladder and ureteric injury	2
Wound sepsis	0
DIC	2
Febrile morbidity	0
Renal failure	2
Blood transfusion	10
ICU admissions	9
Paralytic ileus	1

CONCLUSION

Emergency hysterectomy is the surgical removal of the uterus following an unexpected and sudden event, which must be dealt with urgently by carrying out the procedure.^[1-4] When it is carried out in a woman with a pregnant uterus less than 24 hours after delivery, it is termed emergency peripartum hysterectomy.^[1,2] This life-saving obstetric procedure has been in use for more than 100 years, since Edward Porro in 1876 published the first case report of a successful procedure in which both mother and baby survived.^[6]

The leading indications for emergency peripartum hysterectomy are uterine atony and placenta previa with placenta accreta. The higher incidence of emergency peripartum hysterectomy is because of the higher prevalence of risk factors like multiparity, previous caesarean section, placenta praevia and current caesarean delivery. Adequately equipped antenatal care, early identification of risk factors, hospital delivery facilities and timely intervention by an obstetrician to carry out medical/ conservative surgical treatments of primary postpartum haemorrhage are needed to reduce the incidence of EPH and morbidity associated with it. Total hysterectomy is the recommended surgical method of EPH due to the potential risk of malignancy.^[6] Current study most of the women in the current study underwent total hysterectomy, only one underwent subtotal hysterectomy. The proponents of subtotal hysterectomy report a lesser blood loss, a reduced need for blood transfusion, reduced operating time and reduced intra and postoperative complications. A comparison of institutional figures shows that the rate of EPH in Nigeria ranges from 1.8 to 5.4 per 1000births.^[5-7] In Pakistan the reported rate is 5.6 per 1000 births, in India 2.6 per 1000 births, and in the United States between 1.2 and 2.7 per 1000 births.^[8,9] However, the rate is lower in European countries: a rate of 0.2 per 1000 births was reported from Norway, and 0.3 per 1000 births from Ireland and the Netherlands. This may be because of proper use of effective antenatal and delivery facilities, and the desire for small family size in Europe. The increasing rate of the procedure in developed countries such as the United States and Canada, despite proper use of effective antenatal and delivery facilities.

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The increasing rate of the procedure in developed countries such as the United States and Canada, despite proper use of effective antenatal and delivery facilities, has been attributed to the increasing Caesarean section rate,^[4,8,13] which predisposes to placenta previa and placenta previa accreta. These two conditions are now the leading indications for EPH in developed countries.

REFERENCES

1. A. C. Rossi, R. H. Lee, and R. H. Chmait, "Emergency postpartum hysterectomy for uncontrolled postpartum bleeding: a systematic review," *Obstetrics and Gynecology*, 2010; 115(3): 637–644.
2. M. Waterstone, S. Bewley, and C. Wolfe, "Incidence and predictors of severe obstetric morbidity: case-control study," *British Medical Journal*, 2001; 322(7294): 1089–1093.
3. Rashmi MB, Rajkumari. Emergency Peripartum Hysterectomy: A 3-Year Review. *International Journal of Current Medical And Applied Sciences*, March: 2015; 6(1): 60-63.
4. Chestnut DH, Eden RD, Gall SA, Parker RT. Peripartum hysterectomy: A review of cesarean and postpartum hysterectomy. *Obstet Gynecol*, 1985; 65: 365–70.
5. Miller DA, Chollet JA, Goodwin TM (1997) Clinical risk factors for placenta previa-placenta accreta. *Am J Obstet Gynecol*, 177(1): 210–214.
6. F. Kayabasoglu, K. Guzin, S. Aydogdu, S. Sezginsoy, L. Turkgeldi, and G. Gunduz, "Emergency peripartum hysterectomy in a tertiary Istanbul hospital," *Archives of Gynecology and Obstetrics*, 2008; 278(3): 251–256.
7. Kastner ES, Figueroa R, Garry D, Maulik D (2002) Emergency peripartum hysterectomy: experience at a community teaching hospital. *Obstet Gynecol*, 2002; 99(6): 971–975.
8. A. Kwee, M. L. Bots, G. H. A. Visser, and H. W. Bruinse, "Emergency peripartum hysterectomy: a prospective study in the Netherlands," *European Journal of Obstetrics Gynecology and Reproductive Biology*, 2006; 124(2): 187–192.
9. Kwame-Aryee R, Kwakye A, Seffah J (2007) Peripartum hysterectomies at the Korle-bu teaching hospital: a review of 182 consecutive cases. *Ghana Med J*, 2007; 41(3): 133.
10. Obiechina NJ, Eleje GU, Ezebialu IU, Okeke CA, Mbamara SU (2012) Emergency peripartum hysterectomy in Nnewi, Nigeria: a 10-years review. *Niger J Clin Pract.*, 2012; 15(2): 168–171.
11. Omole-Ohonsi A, Olayinka HT (2012) Emergency peripartum hysterectomy in developing country. *J Obstet Gynaecol Can*, 2012; 34(10): 954–960.
12. Fornal F, Miles AM, Jamieson DJ. Emergency peripartum hysterectomy: a comparison of cesarean and postpartum hysterectomy. *Am J Obstet Gynecol*, 2004 May; 190(5): 1440-4.
13. Khan B, Khan B, Sultana R, Bashir R, Deeba F. *J Ayub Med Coll Abbottabad*, 2012; 24(1): 14-17.

14. Cieminski A, Dlugolietcki F. Placenta previa accreta. *Ginekol Pol.*, 2004; 75(12): 919-25.
15. Choi SJ, Song SE, Jung KL, Oh SY, Kim JH, Roh CR. Antepartum risk factors associated with peripartum cesarean hysterectomy in women with placenta previa. *Am J Perinatol*, 2008; 25: 37-41.
16. Adesiyun AG, Eseiegbé E, Ameh CA. Inevitable peripartum hysterectomy in a tropical hospital: indications and maternofetal outcome. *Pak J Med Sci.*, 2008; 24: 122–6.
17. 2008 Nigeria Demographic and Health survey (NDHS). Available at: <http://www.measuredhs.com/pubs/pdf/gf15/gf15.pdf>. Accessed July 20, 2012.