

Original Article

Emergency Obstetric Hysterectomy: A Review of 40 cases in Faridpur Medical College Hospital

Mahbuba¹, K Fatema², S R Das³, I P Alam⁴, Z Parvin⁵

Abstract:

Emergency obstetric hysterectomy is removal of part or whole of the uterus done to save the life of a mother in complications in the intra partum or post-partum period. This study was done to assess the cases of emergency obstetric hysterectomy (EOH) in view to find out the indications, the patient profile, the risk factors, the morbidity and mortality associated with the procedure. It was a retrospective analysis of 40 cases of obstetric hysterectomy performed in Faridpur Medical College Hospital (FMCH) during the period of August 2012 to July 2014. Patients were evaluated from history and clinical observation records regarding maternal age, parity, indication of operation, associated risk factors, surgical procedure and complications during hospital stay. In maximum patient with EOH the overall incidence is in the age group of 25-29 years (42.5%) and parity of 2nd-3rd. The most common complication was ruptured uterus 50% and PPH 12.5%. Among the risk factors the most common was previous caesarean section (55%) then grand multipara (15%). Out of 40 cases 40% needed total hysterectomy and 60% was managed by subtotal hysterectomy. In most cases complications were hemorrhage and 100% patient needed blood transfusion among which 50% in the post-operative period. All the patients were discharged after treatment with no history of maternal death or referral to higher centers. Emergency obstetric hysterectomy is a lifesaving procedure when decision is taken at proper time, done rapidly by expert surgeon along with availability of blood and safe anesthesia. Thus it can play a vital role to reduce and prevent maternal death.

Key words: Emergency obstetric hysterectomy.

Introduction:

Emergency obstetric hysterectomy though a lifesaving surgical procedure but is considered as risky operation in modern obstetrics. Here the uterus as a whole or partially removed during cesarean section, following cesarean section, immediately after vaginal delivery or during puerperium in order to reduce maternal death¹ from grave complications related to child birth.

Hemorrhage due to uterine atony, adherent placenta and PPH are still the causes of maternal death in developing countries².

Uterine rupture is a leading indication of emergency hysterectomy in third world countries accounting 58-72%^{3,4}. With increase in the number of cesarean delivery; abnormal placental adhesions, placenta previa has emerged as the most common indication in developed countries⁵. This change in trend is being seen in developing countries as well^{1,2}. This lifesaving obstetric procedure has been in use for more than 100 years. Edward Poro published the first case report of the procedure⁶. With the emergence of uterotonic drugs and less invasive alternative methods like B-Lynch suture, uterine artery ligation (IAL) the indications of emergency hysterectomy are less common now as compared to the past⁷.

The purpose of our study is to know the incidence, the patient profile, the indications, the associated risk factors and complications of the procedure in Faridpur Medical College Hospital which is a tertiary level hospital with the catchment area of large part of the southern zone of Bangladesh.

1. Dr Mahbuba, MBBS, FCPS (Obst & Gyne) Associate professor & Head of the Department of Obst & Gyne, Faridpur Medical College, Bangladesh.
2. Dr Kaneez Fatema, MBBS, MS (Obst & Gyne), Asstt. Professor of the Department of Obst & Gyne, Faridpur Medical College, Bangladesh.
3. Dr Shila Rani Das, MBBS, FCPS (Obst & Gyne), Associate professor of the Department of Obst & Gyne, Faridpur Medical College, Bangladesh.
4. Dr Irin Pervin Alam, MBBS, FCPS & MS (Obst & Gyne), Asstt. Professor of the Department of Obst & Gyne, Sir Salimullah Medical College & Mitford Hospital, Dhaka, Bangladesh.
5. Dr. Zebunnessa Parvin, MBBS, DGO, FCPS (Obst & Gyne), Associate Professor, Department of Obst & Gyne, Faridpur Medical college Bangladesh.

Address of correspondence :

Dr Kaneez Fatema, MBBS, MS (Obst & Gyne), Asstt. Professor of the Department of Obst & Gyne, Faridpur Medical College, Bangladesh. Phone: +8801711167362, E-mail: moyourakhi2003@yahoo.com

Material and Method:

A retrospective analysis was performed among 40 cases of obstetric hysterectomy performed in the obstetrics and gynecology department of Faridpur Medical College Hospital during the period August 2012-July 2014. Each case record was analyzed in details as regard to maternal age, parity, indication of operation, associated risk factors and time of surgery. From case files and operation register, records obtained regarding type of operation, anesthesia, and associated surgery, operative and post-operative complications. The fetal outcome and relevant cases are also analyzed. Hysterectomy performed for any indications during pregnancy, labor and puerperium has been included in this study.

Result:

Out of 6966 women delivered during our study period in Faridpur Medical College Hospital 2965 had vaginal delivery and 4001 underwent lower segment cesarean section (LSCS) and laparotomy. Among these, emergency hysterectomy was done in 40 cases and the incidence is 0.57%.

Table I: Distribution of patient according to age

Age in Years	Number of Patient (%)
15-19	0 (0)
20-24	2 (5)
25-29	17 (42.5)
30-34	9 (22.5)
35-40	11 (27.5)
>40	1 (2.5)

As shown in table-I patients were between the ages of 20-40 years. One patient (n=20) found more than 40 years. Most of the patient were of the age group of 25-29 years (n=17) 42.55%.

Table II: Distribution of patient according to parity

Para	Number of patients (%)
Primi	0 (0)
2 nd -3 rd	26 (65)
4 th -5 th	10 (25)
> 5 th	4 (10)

Regarding parity, 65% of cases (n=26) were of parity 2nd and 3rd, 25% (n=10) of parity 4th-5th. Among 40 patients 12 (30%) patients had irregular antenatal check-up and 28 (70%) patients were unbooked.

Table III: Distribution of patient according to indication of hysterectomy.

Indications	Number of patients (%)
Ruptured Uterus	20 (50)
Severe PPH due to uterine atony	5 (12.5)
Placenta accrete	4 (10)
Placenta Previa with hemorrhage	3 (7.5)
Abortion complications	5 (12.5)
Secondary PPH	2 (5)
Molar pregnancy	1 (2.5)

In our series, 50% patient (n=20) had to go for emergency hysterectomy for ruptured uterus when uterus was not found to be suitable for repair at the time of operation. Next common indication was severe PPH 12.5% (n=5) due to uterine atony where all conservative measures failed. Post-abortion complications needed hysterectomy in 12.5% (n=5) cases. Among abortion complications 5% (n=2) had uncontrolled uterine hemorrhage, 2.5% had perforation and 5% had septic gangrenous uterus. Ten percent patient needed hysterectomy for placental complications; of them placenta was morbidly adherent to the uterine scar of previous caesarean section in 7.5% and placenta previa with uncontrolled hemorrhage in rest. Rest of the cases underwent hysterectomy for molar pregnancy, uncontrolled hemorrhage, secondary PPH with infection etc.

Table IV: Distribution of patients according to risk factors

Risk Factors	Number of patients (%)
Previous C/S*	22 (55)
Grand Multipara	6 (15)
Prolonged Labor	5 (12.5)
APH	2 (5)
Others like- post-abortion complications, H. mole etc	5 (12.5)

(* Previous c/s 22= Placenta accreta 4 + Placenta Previa 3 + Ruptured uterus 15)

Among our patients 55% (n=22) had history of previous caesarean section, among them 68.3% patients came with ruptured uterus. They were unbooked and had unattended trial for vaginal delivery at home. Rest of the patient had placenta accreta (18%) and placenta previa with uncontrolled hemorrhage (13.2%). Among post caesarean cases 15% patient had parity 5 or more. 12.5% patient had h/o prolonged labor and subsequently developed complications. Among other patients, abortion complications like sepsis following induced abortion, uncontrolled bleeding for evacuation of missed abortion, uterine perforation and gangrene, H. mole etc was found.

Table V: Distribution regarding timing of operation

Time of surgery	Number of patient (%)
Intrapartum	25 (62.5)
Postpartum	8 (20)
Post – abortal	7 (17.5)

Regarding timing of the operation 62.5% hysterectomy were done during intrapartum period following expulsion of the baby by caesarean section. On laparotomy for ruptured uterus 20% hysterectomy was done in the postpartum period and 17.5% hysterectomy was required following abortion.

Table VI: Distribution according to pregnancy outcome

Pregnancy Outcome	Number of patient (%)
Alive	11 (27.5)
Still Birth	22 (55)
Abortion	7 (17.5)

We found among our study group 27.5% (n=11) had alive baby, 55% (n=22) had stillborn babies and 17.5% (n=7) had abortions.

Table VII: Distribution according to type of operation

Operation	Number of patient (%)
Total abdominal hysterectomy	16 (40)
Subtotal hysterectomy	24 (60)

Out of 40 patients 40% (16) patient Underweight total abdominal hysterectomy with preservation of both ovaries and 60% (24) patient underwent subtotal hysterectomy.

Most of the patients were in grave condition during operation, 37.5% patient received general anesthesia whereas 62.5% patients were operated under subarachnoid block.

Table VIII: Distribution according to post-operative complications

Post-operative complications	Number of patients (%)
Hemorrhage	30 (75)
Per-operative/Post-operative blood transfusion	20 (50)
Febrile Morbidity	10 (25)
Shock	5 (12.5)
Bladder injury	2 (5)
Paralytic ileus	2 (5)
Chest infection	2 (5)
Wound infection	3 (7.5)
Cardiac arrest	1 (2.5)
Referred	1 (2.5)
Death	0 (0)

Total 75% of the patient had hemorrhage before and during operation and 12.5% were in shock. Five percent patient (n=2) had urinary bladder injury and one patient developed cardiac arrest during operation. All patients needed blood transfusion of which 50% given during operation and in the post-operative period. Twenty five percent patients had febrile morbidity following operation, 5% patient developed paralytic ileus which was improved by conservative treatment. One patient remains unconscious after operation was referred to higher center for ICU management.

Discussion:

Obstetric hysterectomy is a life-saving procedure. Timely decision and good surgical skill are the two factors related with surgeon that affect the maternal outcome⁸.

The present study conducted in Faridpur Medical College Hospital which is a referral hospital catching the southern part of the country. The study was done to evaluate the incidence, indications, maternal risk

factors, type of surgical procedure and maternal outcome of the cases. In our study most of the patients were in the age group of 25-29 years (42.5%) which was similar to the age group in the study of Anjali K et al (37%)⁹.

The incidence was more in the parity group of 2nd and 3rd (65%) which is the largest group. In our study the commonest risk factor was h/o previous cesarean section those had unattended delivery resulting ruptured uterus. Multiparity of para 4-5 is 25% which is nearer to the study of Nojum R et al. they found incidence 25% among para >3¹⁰.

We found 70% cases were unbooked and rest 30% had irregular antenatal check-up. Lack of awareness of taking proper ANC and delivery care is an important factor for the development of such catastrophe. In our observation, 50% patient (n=21) needed emergency hysterectomy due to ruptured uterus next common indication was severe uncontrolled PPH due to uterine atony (12.5%) and complications of septic abortion (12.5%, n=5). The observation was close to the observation of Najam R et al. they found ruptured uterus as an indication among 45.8% and atonic PPH 16.6% in their series¹⁰.

Morbid adhesion of placenta and placenta previa covering the scar of previous C/S was found in 10% cases (n=4) and placenta previa with uncontrolled PPH 7.5% cases (n=5) which was in contrast to 4.1% in the study of Najam R et al. (8.7%)¹⁰ & 7.7% in the study of Bushra Khan et al.¹¹ with increased trend of cesarean section and referral of complicated cases from the surrounding area is responsible for this picture. Regarding timing of the operation 62.5% was done intrapartum (n=25), 20% in the postpartum period and 17.5% needed for post abortal complication.

In our study 22.5% patient delivered by LSCS, 12.5% had vaginal delivery. Other conditions like ruptured uterus, abortion complications, molar pregnancy and hemorrhage accounted for 65%. Najma Bano et al. found vaginal delivery 25.85% which was more than that of our study but cesarean section and laparotomy was 70.73%¹.

We found common complication of operation as per operative hemorrhage 75%, febrile morbidity 25% and 12.5% was in shock as continuation of the poor preoperative condition, whereas hemorrhage was in 46.34%, febrile illness in 70.73%, shock in 22% in the study of Nazma Bano et al¹.

Conclusion:

Ruptured uterus, uncontrolled PPH and shock are still the leading causes of maternal death in our country which can be prevented by peri partum hysterectomy. In our study we found that proper diagnosis, rapid evaluation of the hemodynamic state of the patient, prompt preoperative management and skilled surgery are the important factors to save a mother's life in this situation. Safe blood transfusion and anesthesia also play a vital role. Proper intra partum management of labor and careful trial labor of patient with history of previous c/s can reduce the incidence of this operation. Every obstetrician should be accustomed to perform hysterectomy in obstetric emergencies so that the mortality and morbidity associated with the procedure can be reduced.

References :

1. Nazma Bano Shaikh, Shabnam Shaikh, Jan Muhammad Shaikh. Morbidity and mortality associated with Obstetric hysterectomy. J Ayub Med Coll Abbottabad 2010; 22(2):100-104.
2. Anita K, Kavita WW. Emergency obstetric hysterectomy. J of obstet Gyneco India 2005; 55:132-4.
3. Korezo R, Jaferey SN. Obstetric hysterectomy: Five years' experience at Jinnah post-graduate medical centre, Karachi. J Pak Med Assoc. 1995; 45:86-8.
4. Onwudiegwu, Okonofua FE. Emergency obstetric hysterectomy in a Nigerian hospital. J obstet gynocol. 1995; 15:24-6.
5. Zelop CM, Harlow BL, Frigoletto FD, Safon LE, Saltzman Dh. Emergency peripartum hysterectomy. Am J obstet gynocol. 1993; 168:1443-48.
6. Gilstrap III LC, Cunningham FG, Vandorsten JP. Obstetric hysterectomy. Operative obstetrics 2nd ed. New York: McGraw Hill; 1995.p. 215-16.
7. Nasima Siddiq, Asifa ghazi, Shazia Jabbar, Tehmina Ali. Emergency obstetrical hysterectomy (EOH): A life saving procedure in obstetrics. Pakistan Journal of Surgery. 2007; 23(3):217-19.
8. Clark S, Yeh Sy, Phelan JP, Bruce S, Paul RH. Emergency Hysterectomy for obstetrical haemorrhage. Obstet Gynaecol 1984; 64:376-80.
9. Kanhere A, Sapkal R. Obstetric hysterectomy: a retrospective study at a tertiary care centre. Int J Reprod Contracept Obstet Gynaecol 2013; 2(4):562-65.
10. Najam R, Bansal P, Sharma R, Agarwal D. Emergency obstetric hysterectomy: a retrospective study at a tertiary care hospital. Journal of Clinical and diagnostic Research 2010; 4:2864-68.
11. Khan B, Khan B, Sultana R, Bashir R, Deeba F. A ten year review of emergency peipartum hysterectomy in a tertiary care hospital. J Ayub Med Coll Abbottabad 2012; 24(1):14-17.