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Obstetric Hysterectomy: A ray of hope for a dying mother

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Abstract

Objective(s): To study the incidence, indications, maternal and fetal outcomes in cases of emergency obstetric hysterectomy.

Material and Methods: A retrospective study of all the cases who underwent obstetric hysterectomy was conducted for one year in the Department of obstetrics and gynecology, Govt. Medical College, Patiala, Punjab. A detailed history including demographic profile, gestational age, antenatal care during pregnancy, obstetrical history, high risk factors were taken into account.

Results: Total deliveries during this period were 2223 and out of them 11 patients underwent obstetric hysterectomy, including one case of septic abortion, giving an incidence of 0.494%. Majority of the patients who underwent obstetric hysterectomy were of rural background, uneducated and unbooked. Postpartum hemorrhage (PPH) 45.45%, and Rupture uterus 36.4% were the two most common indications for obstetric hysterectomy. Maternal Mortality was 27.27% .Fetal mortality was 60%.

Conclusions: Obstetric hysterectomy is a necessary evil in obstetrics. Although, it curtails the future child bearing potential of woman, yet in many cases, it saves the life of mother. It can be called as "Ray of Hope for a dying Mother."

Keywords: Obstetric Hysterectomy, Post-Partum Hemorrhage, Rupture Uterus.

Introduction

Obstetric hysterectomy is one marker of obstetric morbidity. It is considered as one of the most risky and dramatic operations in modern obstetrics, where the uterus is removed either during caesarean section or following or immediately after vaginal delivery or during period of puerperium in order to reduce maternal morbidity and mortality.(1)

It is a vital procedure to save life of a mother although it is opted as a desperate attempt when all measures fail to control catastrophic hemorrhage from placental bed in previa or moribund adherence of placenta or due to uterine atonia.(2)

Edward Porro (1876) published the first case report of the emergency obstetric hysterectomy which was performed in the case of intractable postpartum hemorrhage.(3)

Worldwide reports revealed striking difference among prevalence rate ranging from 1:361 to 1:3000 deliveries depending upon inherent characteristics of concerned obstetric population and standards of available maternity, family planning services and their utilization.(4,5)

Obstetric hysterectomy can save many maternal lives. Fast decision and excellent surgical skills is required to save life while doing obstetric hysterectomy. Early resuscitation, transfusion of blood and blood components help to improve hemodynamic status of patient which helps the patient to withstand the surgical procedure and anaesthesia. The decision of obstetric hysterectomy particularly in the younger age group and low parity causes a great dilemma to the surgeon. Timely decision is crucial in preventing catastrophies.(6)

Material and Methods

A one year retrospective study was conducted in the department of Obstetrics and Gynecology, Govt. Medical College and Rajendra hospital, Patiala, Punjab. All cases who underwent obstetric hysterectomy during this period were included and thoroughly evaluated, investigated.

Every relevant detail including age, parity, gestational age, antenatal care during pregnancy, obstetrical history, high risk factors was taken in account.

Objective

To study the incidence of obstetric hysterectomy, indications for obstetric hysterectomy, maternal morbidity and mortality associated with this procedure.

Results

Total deliveries during this period were 2223.out of these 11 obstetric hysterectomies were performed, including one hysterectomy for septic abortion performed, giving an incidence of 0.494%. Maximum patients in the present study belonged to the age group of 26-30 years (54.54%). Maximum age was 35 years and minimum age was 24 years. 45.45% of patients were multipara and 18.18% of patients were grand multiparas. Majority of patients who underwent obstetric hysterectomy were uneducated (72.7%), unbooked (81.8%) and belonged to rural background,(72.7%).

Postpartum Hemorrhage was the most important event that led to this morbidity in 45.45% of all cases, followed by Rupture uterus which accounted for 36.4% cases. Only one patient each of Morbidly adherent placenta and Septic abortion underwent obstetric

hysterectomy. All the patients who underwent obstetric hysterectomy have one or more predisposing high risk factors, for e.g. previous Lower segment caeserean section (LSCS) (18.18%), Ante partum hemorrhage (APH) (36.36%), Grand multi-parity (18.18%), Obstructed labor (9.09%), Oxytocin misuse (9.09%).

Maximum patients in the present study underwent subtotal hysterectomy (72.72%). Only 3 patients including one with Morbidly adherent placenta and the other two with major degree placenta praevia underwent total hysterectomy,(27.27%).

Maternal Morbidity in the form of various complications were encountered including febrile morbidity in 45.45% of cases, wound dehiscence in 18.18%, coagulopathy 27.27%, ICU stay 36.4%, shock 27.27% etc. 100% of patients received blood transfusions in the form of component therapy.

Maternal Mortality was 27.27% i.e. 3 cases. One patient died of septicemic shock and the other two due to coagulopathy. All these three cases were unbooked.

Fetal mortality was 60%. All the still births accounted to the group who was unbooked.

Table 1: Demographic profile of cases

Age	**No. of patients**	**% age**
21-25	1	9.1%
26-30	6	54.54%
31-35	4	36.4%
Total	11	100%
Parity	**No**	**%age**
1	2	18.18%
2	2	18.18%
3	5	45.45%
>3	2	18.18%
Total	11	100%
Residence	**No**	**%age**
Rural	8	72.7%
Urban	3	27.3%
Total	11	100%
Literacy	**No**	**%age**
Educated	3	27.3%
Uneducated	8	72.7%
Total	11	100%
Booking status	**No**	**%age**
Booked	2	18.18%
Unbooked	9	81.8%
Total	11	100%

Table 2: Indications for Hysterectomy

Indications	**No**	**%age**
Rupture uterus	4	36.4%
• *Obstructed labor*	2	18.18%
• *Oxytocin misuse*	1	9.1%
• *Prolonged labor*	1	9.1%
Post partum hemorrhage	5	45.45%
• *Atonic*	2	18.18%
• *Major degree placenta previa*	3	27.27%
Morbidly adherent placenta i.e. placenta acreta	1	9.1%
Septic abortion	1	9.1%
Total	11	100%

Table 3: High Risk Factors

Factors	**No**	**%age**
Previous LSCS	2	18.18%
Antepartum Hemorrhage	4	36.36%
Postpartum Hemorrhage	5	45.45%
Morbidly Adherent placenta	1	9.09%
Grand Multipara	2	18.18%
Oxytocin Misuse	1	9.09%
Obstructed Labor	1	9.09%
Prolonged Labor	1	9.09%

Note- Many patients have more than one risk factors.

Table 4: Maternal Complications

Complications	**No**	**%age**
Multiple Blood Transfusions	11	100%
Febrile Morbidity	5	45.45%
Anemia	11	100%
Wound Dehiscence	2	18.18%
Coagulopathy	3	27.27%
ICU stay	4	36.4%
Shock	3	27.27%

Note- More than one complication was encountered in patients.

Table 5: Association of Fetal Outcome with Booking Status

	Booked	**Unbooked**	**Total**
Alive	2	2	4
Stillbirth	0	6	6
Total	2	6	10

Note- One case with septic abortion underwent hysterectomy hence no. of cases are 10 here.

Discussion

Obstetric hysterectomy is a life saving procedure for the dying mother. It is usually the last resort to save the life of the mother.

During the study period there were 2223 deliveries and 11 obstetric hysterectomies were performed giving an incidence of 0.494%. It is comparable to that reported by Bhat et al (2016)[7]-0.38%, Shaikh N (2010)[1]-0.63%, Mukherjee et al (2016)[8]-0.39%, Jadav et al (2014)[9]-0.35%, Kant Anita et al (2005)[10]-0.26%, Praneshwari Devi et al (2004) [11]-0.0779%. Incidence of obstetric hysterectomy is slightly higher than others as ours is a tertiary care referral centre and most of the patients were already in moribund state at the time of arrival.

In the present study the most common indication of hysterectomy was postpartum hemorrhage accounting to 45.45% of the total while rupture uterus contributing to 36.4% of the cases.

Table 6: Indications of Obstetric Hysterectomy by Different Authors

	Postpartum Hemorrhage	Septic Abortion	Rupture Uterus	Morbidly Adherent Placenta
Bhat et al (2016)[7]	40%	-	20%	20%
Mukherjee et al(2016)[8]	-	-	45.45%	30.3%
Jaya Chawla et al(2015)[12]	25%	-	17.9%	21.4%
Jadav et al (2014)[9]	62%	3.45%	31%	-
Shaikh et al(2010)[1]	-	-	51.22%	9.76%
Kant Anita et al (2005)[10]	41.46%	7.32%	36.58%	12.19%
Present study	45.45%	9.1%	36.4%	12.19%

Maximum patient (54.54%) in the present study belonged to the age group of 26-30 years which is comparable to Bhat et al (2016)[7] 46.7%, Shaikh et al (2010)[1] 48.78%.

Maternal complications including febrile morbidity was seen in 45.45% of all cases which is comparable to Jadav et al (2014)[9] 34.4% while Mukherjee et al (2016)[8] reported in 30.3% of cases. Gaped surgical wound was seen in 18.18% of our cases while Mukherjee et al (2016)[8] reported in 12.1% of all cases. Coagulopathy was seen in 27.27% of all patients as a complication which is comparable to Jadav et al (2014)[9] 31.03%. 36.45% of all cases were transferred to ICU in the present study while Jadav et al (2016)[9] reported this % to be 34.4%.

Maternal Mortality in the present study is 27.27% which is higher than that reported by Shaikh N (2010)[1] 12.19%, Jadav et al (2016)[9] 20.6%, Kant Anita et al (2005)[10] 9.7%. Jaya Chawla et al (2015)[12] reported 28.6% maternal mortality which is comparable to present study with some variations.

Conclusions

Obstetric hysterectomy is a necessary evil in obstetrics .Although it curtails the future child bearing potential of woman, yet in many cases it saves the life of mother .Thus it can be called as "Ray of Hope for a dying Mother".

Every obstetrician should be trained to perform this procedure. Proper antenatal care, delivered by trained personnel, timely referral of high risk cases to the higher centre are all needed to improve the maternal health of our country and to achieve the MDG target 5, bench mark of decreasing maternal mortality rate to 109 per lakh live births.

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