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Research Article

Obstetric hysterectomy: a retrospective study at a tertiary care centre

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ABSTRACT

Background: To analyze the cases of Obstetric Hysterectomy in view to evaluate the incidence, indication, maternal risk factors and complications associated with the surgery.
Methods: Retrospective Observational analytical study of cases of obstetric hysterectomy performed at Obstetrics and Gynecology department of People's Medical College and Research Centre, Bhanpur, Bhopal over a period of seven years was done. Evaluation of Maternal age, parity, gestational age, indication for hysterectomy, the type of operation performed, blood loss, blood transfused, complications, and hospitalization period was done.
Results: The overall incidence of Obstetric hysterectomy in our study was found to be 0.33%, with a maximum number of patients 7 (33%) in the age group of 26-30 yrs. Patients who were para 3 or more were -12 (63%). The causes for an obstetric hysterectomy were PPH – 12 (63%); placenta previa – 5 (26%); ruptured uterus – 4 (21%). 9(47%) patients had a history of previous caesarean section. Out of the 19 hysterectomies performed, 12(63%) were total hysterectomy and 7(37%) were subtotal hysterectomy. Fever was the commonest complication 7(37%). There were two maternal deaths.
Conclusions: Obstetric hysterectomy is a lifesaving procedure. The outcome depends on timely decision, good clinical judgement and professional surgical technique. It reduces maternal morbidity and mortality.

Keywords: Obstetric hysterectomy, Postpartum haemorrhage, Rupture uterus, Previous caesarean section

INTRODUCTION

Obstetric hysterectomy is the removal of uterus at the time of caesarean section, following caesarean section, immediately after vaginal delivery or in the period of puerperium.[1]

Obstetric hysterectomy is usually the last resort in the obstetrician's armamentarium to save the life of the mother.[2] In developing countries obstetric haemorrhage is the leading cause of maternal deaths.[3] Prompt decision making and excellent surgical skills with a speedy intervention are the key component of this life saving procedure. Early resuscitation, transfusion of blood and blood components helps to improve deteriorating haemodynamic parameters and helps the patient to withstand the surgical procedure and anaesthesia.

The commonest indications for emergency hysterectomy which are cited in the literature are uterine rupture and atonic uterus.[4]With increase in the number of caesarean deliveries abnormal placenta adhesions, Placenta Previa has emerged as the most common indication for this operation in developed countries.[5]This change in trend is being seen in developing countries as well.[2,6]

The purpose of our study was to analyze the cases of Obstetric Hysterectomy in view to evaluate the incidence, indication, maternal risk factors and complications associated with the surgery.

METHODS

Retrospective Observational analytical study of 19 cases of obstetric hysterectomy performed at Obstetrics and Gynecology department of People's Medical College and

Research Centre, Bhanpur, Bhopal over a period of seven years was done. Evaluation of maternal age, parity, gestational age, indication for hysterectomy, the type of operation performed, estimated blood loss, amount of blood and components transfused, complications, and hospitalization period was done. The foetal outcome was also analysed.

RESULTS

During the study period of Seven years total number of deliveries were 6735, of which vaginal deliveries were 3451 and LSCS were3284.The overall incidence of obstetric hysterectomy was 0.28%, 0.08% was in cases of vaginal delivery and 0.46% was in cases of LSCS for various indications.

Maternal Characteristics – Age and Parity-Age of patients ranges from 22-38 (mean age≈ 29). Seven patient 37% were in the age group of 26 to 30yearsand were multipara (parity > 4).This shows that the incidence of this radical and lifesaving surgery is more in this group.

Antenatal Booking-Fourteen patients (74%) were unbooked and fifteen patients (79%) were from rural area.

Indications- The commonest indication for performing obstetric hysterectomy was postpartum haemorrhage 12(63%) followed by placenta previa 5(26%) and rupture uterus 4(21%).

Previous caesarean section was a significant high risk factor 9(47%), all placenta previa was associated with previous caesarean section100%.

Type of hysterectomy and associated surgical procedure – Out of the 19 hysterectomies performed, 12were total hysterectomy and 7 were subtotal.3patients underwent internal iliac artery ligation prior to hysterectomy.1 patient underwent bowel repair.

Postoperative complication – Postoperative shock, paralytic ileus and fever were the common complications.

Blood loss and blood transfusion – The average blood loss was in the range of 2to3 litres. All patients underwent replacement therapy with blood and component transfusion.

Hospital Stay – 12(63%) had hospital stay of around 25 days.

There were two maternal deaths (11%) in patients with associated medical complication of jaundice and uncontrolled diabetes mellitus.

Foetal characteristics: There were 12 live births with average birth weight of 2.6kgs.Two out of the total were preterm and died in neonatal period, another two were stillbirths, and three were intrauterine deaths. The proportion of perinatal mortality was 37%.

Table 1: Age wise distribution of cases of obstetric hysterectomy.

Age (years)	Number of patient	Percentage
21-25	6	32
26-30	7	37
31-35	5	26
36-40	1	5
Total	19	100

Table 2: Indications of obstetric hysterectomy.

Indication	Number of patients	Percentage
PPH without placenta previa	06	6/19
Placenta Previa	05	5/19
Rupture uterus	04	4/19
Puerperal sepsis	02	2/19
Perforation during termination of pregnancy	01	1/19
Acute inversion	01	1/19
	19	100

Table 3: High risk factors (figure in bracket shows number of patients).

PPH(12)	Rupture Uterus (4)	Morbidly adherent placenta (5)
Placenta Previa (5)	Previous Caesarean section (9)	Placenta Previa (5)
Prolonged Labour (3)	Grand multipara (3)	Previous Caesarean section (9)
Multiple pregnancy (2)	Prolonged labour (3)	
Polyhydramnios (1)		
Postdatism (1)		

Table 4: Associated complications (figure in bracket shows number of patients).

Medical complications	Obstetric complications
Rh –ve (1)	Prolonged labour (3)
Diabetes Mellitus (1)	Multiple pregnancy (2)
Liver Disease (2)	Placenta Previa (5)
PIH(4)	Polyhydramnios (1)
Sepsis(2)	Postdatism (1)

DISCUSSION

Obstetric hysterectomy is a lifesaving procedure. Prompt decision and good surgical skills are the two factors related with surgeon's acumen that affect the maternal outcome.[7] The present study was done to evaluate the incidence, indication, maternal risk factors and complications associated with the surgery.

In our study the incidence of Obstetric hysterectomy was 0.28%.The incidence was in the same range as reported by Kant et al.[3] The primary reason for this incidence is due to the fact that our institution is a tertiary referral center and receive patients from periphery.

Seven patient 37% were in the age group of 26 to 30years and were multipara (parity > 4).High association with multiparty was seen by Najam R et al.[2] This observation highlights the need of emphasis on usage of contraceptive methods and counselling

The commonest indication of obstetric hysterectomy in our study was postpartum hemorrahge12 (63%) followed by placenta previa 5(26%) and rupture uterus 4(21%).Similar findings have being reported by Kant et al (41.46%) and Agashe and Marathe (60%).[8]

The dangerous combination of previous caesarean section, morbid adherent placenta and placenta previa was seen in our series. This is highlighted in other studies also.[6,9,10] It is reported in the literature[11], the incidence of obstetrical hysterectomy due to uterine atony shows a decline from 42% to 29% while the incidence has increased from 25%to 41% due to abnormal placentation. This is due to increased incidence of abnormal placental insertion, invasion anomalies associated with increased rate of caesarean section.Use of uterotonics and hemostatic agents along with use of other surgical technique like internal iliac artery ligation does not avert the need of obstetric hysterectomy in these cases.

Preoperative hemoglobin and hematocrit levels were in a low range of 5.0-8.0 gm/dl. This resulted in fresh blood transfusion and blood components.[2]

Postoperative shock, paralytic ileus and fever were the common complications.[12]

The maternal mortality rate in our study was 11% with DIC and septicaemia being the attributing causes. Kanwar et al[13] reported this as 12% and Siddiq et al of 9.7%.[14] Praneswari Devi et al reported no mortality in their studies.[15] Perinatal mortality was 37%.

CONCLUSIONS

Obstetric hysterectomy is a lifesaving procedure. The outcome depends on timely decision, good clinical judgement and professional surgical technique. It reduces the maternal morbidity and mortality.

Proper antenatal care, identification of high risk cases, patient & relative counselling, and timely referral can prevent the incidence of this catastrophic surgery. Every obstetrician should learn to perform Obstetric hysterectomy. Judicious use of this skill can help in reducing the maternal morbidity and mortality.

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