

## Role of obstetric hysterectomy in critical emergency: a retrospective study in a tertiary care centre

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### Abstract

**Objective(s):** To find out the incidence of emergency obstetric hysterectomy, indications, maternal risk factors and maternal outcome of the procedure.

**Materials and methods:** This Retrospective Observational analytical study of 58 cases of obstetric hysterectomy was conducted in a tertiary care teaching hospital, SMS Medical College, Jaipur over a period of two years from August 2014 to September 2016 .

**Results:** The incidence of obstetric hysterectomy in our study was 0.15%. majority of the cases were multipara and unbooked. Most common indication being postpartum haemorrhage.

**Conclusion:** 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.

**Keywords:** Obstetric hysterectomy, Maternal mortality

### Introduction

Peripartum or Emergency obstetric hysterectomy is defined as any hysterectomy performed within 24 hours of a delivery<sup>1</sup>. Storer performed the first cesarean hysterectomy in the United States in 1869<sup>2</sup>. Soon thereafter, Porro of Milan described the first cesarean hysterectomy in which the infant and mother survived. As a mark of honor, the procedure is frequently referred to as the Porro operation<sup>3</sup>.

A near miss event is defined as a woman who nearly died but survived a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy<sup>4</sup>. EOH can be rightly classified as a near miss event. Obstetric hysterectomy is

usually the last resort in the obstetrician's armamentarium to save the life of the mother<sup>5</sup>.

The commonest indications for emergency hysterectomy, which are cited in the literature, are uterine rupture and atonic uterus<sup>6</sup>. With increase in the number of caesarean deliveries abnormal placenta adhesions, Placenta Praevia has emerged as the most common indication for this operation in developed countries<sup>7</sup>. This change in trend is being seen in developing countries as well.

### Aims and objective

To find out the incidence of emergency obstetric emergency, etiological factor

resulting in obstetric hysterectomy, maternal risk factors and study of its complications and maternal outcome of the procedure.

**Materials and methods**

This Retrospective Observational analytical study of 58 cases of obstetric hysterectomy was conducted in a tertiary care teaching hospital, SMS Medical College, Jaipur . All women undergoing peripartum hysterectomy over a period of two years from August 2014 to September 2016 was enrolled. 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. Data were obtained by reviewing the obstetric admission register, operation register, mortality register and case records. Each case record was analyzed in detail with special emphasis on indications, maternal profile, type of operation performed, maternal morbidity and mortality and also fetal outcome. Hysterectomy performed for any indication during pregnancy, labor and puerperium has been included on this study.

**Observations:** The data thus obtained were analyzed and the observations made are summarized in the ensuing tables.

**Table 1: Statistical data.**

<b>Statistical data</b>	<b>Number</b>
No. of vaginal deliveries	21612
No. of caesarean section	16316
No. of obstetric hysterectomy	58
Incidence of obstetric hysterectomy	0.15%
incidence of obstetric hysterectomy after vaginal delivery	0.1%
Incidence of obstetric hysterectomy after caesarean section	0.22%

**Table 2: Demographic parameters.**

<b>Demographic parameters</b>		<b>Number of cases</b>	<b>Percentage</b>
Socioeconomic status	Lower class	48	82.7%
	Middle class	10	17.2%
Residence	Rural	51	85.4%
	Urban	7	14.6%
Booking status	Unbooked	53	91.4%
	Booked	5	8.6%
Religion	Hindu	40	70%
	Muslim	18	30%

**Table 3: Age distribution.**

<b>Age (in years)</b>	<b>Number of patients</b>	<b>Percentage (%)</b>
20-25	14	24%
26-30	22	38%
31-35	16	27.6%%
36-40	6	10.4%
Total	58	100

**Table 4: Indications of obstetric hysterectomy.**

Indications	No. of patients	Percentage
PPH	26	44.8%
Placenta praevia	13	22.4%
Rupture uterus	10	17.2%
Placenta accreta/increta	6	10.3%
Broad ligament haematoma	2	4.1%
Complication of Medical termination of pregnancy	1	1.7%
Total	58	100%

**Table 5: Parity distribution.**

Parity	No. of cases	Percentage
1	5	8.6%
2	10	17.2%
3-4	28	48.3%
5-6	15	25.8%
Total	58	100%

**Table 6: Mode of delivery.**

	No. of cases	Percentage
Vaginal route	22	38%
Caesarean section	36	62%
Total	58	100%

**Table 7: Post-operative complications.**

Complications	No. of cases	Percentage
Pyrexia	26	44%
Paralytic ileus	10	17%
Wound sepsis	8	13.7%
Urinary tract infection	4	6.9%
Shock	5	8.6%

**Table 8: Cause of death.**

	No. of cases	Percentage
Hemorrhagic shock	3	5.1%
DIC	2	3.4%
Total	5	8.5%

**Table 9: Neonatal outcome.**

	No. of cases	Percentage
Live	50	86.2%
Intrauterine death	8	13.8%
Total	58	100%

### Discussion

In our study the incidence of Obstetric hysterectomy was 0.15%. The primary reason for this incidence is due to the fact that our institution is a tertiary referral center and receive patients from periphery. The comparative incidence in other studies were 0.08% Forna F(2004)(8); 0.26% Kant and Wadhvani (2005)(9); 0.26% Ahmad and Mir (2007)(10); 0.31% Marwaha P et al (2008)(11); 0.04% Flood et al (2008)(12); 0.54% Sharma et al (2009)(13); 0.05% Temizkan O (2016)(14).

In our study majority were under the age group of 26-30yrs. The study by Joana et al(15) observed the maximum incidence in the age group of >35yrs.

The most common indication in our study was postpartum haemorrhage (44.8%) followed by placenta praevia(22.4%). In a study by Agashe and Marathe also, PPH was the commonest indication (60%)(16). Traditionally, uterine atony was the most common indication for hysterectomy. Recent studies have indicated that abnormal placentation is replacing uterine atony as the most common indication for EPH(17).

Maternal mortality 8.5 % in our study is more than in developed world(18,19,20) but comparable with study in other developing countries(21,22,23). And the common causes of mortality being haemorrhagic shock and DIC.

The mortality amongst other studies 9.3% reported by Ambiyee and Venkatraman (24) . Mantri et al (25) reported 14% mortality and Allahabadia and Vaidya(26) 32%. Sturdee and Rushton (27) reported no mortality in their series of 47 cases.

### Conclusion

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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