

**Obstetric Hysterectomy a life saving procedure and its complication**Bhat S<sup>1</sup>, Bhav S<sup>2</sup>

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**ABSTRACT**

**Background:** Previously in developing countries obstetric hysterectomy was done when conservative measures fail to control the post partum hemorrhage. Now a days because of increasing incidence of cesarean deliveries incidence of placenta praevia is increasing. This is contributing as a major cause for obstetrics hysterectomy.

**Objective:** The purpose of the present study was to determine the incidence, indications, complications, maternal morbidity and mortality associated with emergency obstetrics hysterectomy.

**Methods:** Retrospective study of cases undergone obstetric hysterectomy over a period of five years were done. Maternal age, parity, indication for obstetric hysterectomy, risk factors, type of operation performed, additional surgeries and complications were studied.

**Results:** The incidence of emergency obstetric hysterectomy in our study was 0.38% [15 in 3900 deliveries]. 73.3% of the women were above 26 years. 73.3% of patients belonged to parity four or above. Majority of the cases were unbooked (60%). Postpartum hemorrhage (40%), ruptured uterus (20%) and morbidly adherent placenta (20%) were the major indications for obstetric hysterectomy. Previous LSCS was a major risk factor as it is seen in 40% cases. In 66.7% cases

total hysterectomy was performed. Fever was the most common complication seen in 26.6% cases. One (6.7%) patient had maternal mortality.

**Conclusion:** Proper antenatal care and early referral can prevent this catastrophic event. Moreover, timely decision, liberal blood transfusion and speedy surgery by an experienced surgeon are important in the management of this life saving procedure to avoid complications.

**Keywords:** Obstetric hysterectomy, post partum hemorrhage (PPH), placenta praevia, lower segment caesarean section (LSCS), ruptured uterus, accidental haemorrhage (APH)

**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 in order to save maternal life.

[1] The 1<sup>st</sup> successful obstetric hysterectomy was performed by Eduardo Porro in 1876 in a 25years old primiparous dwarf. [2] It is usually the last resort to save the life of the mother. In developing countries most common indications is post partum hemorrhage when conservative measures fail and ruptured uterus when other

measures to control bleeding fails. [3] Now a day's commonest indication is placenta praevia. It is probably related to increase in the number of caesarean delivery over the past two decades. [2-3] As the number of caesarean sections is increasing, the number of scared uteri is also increasing. This exposes the gravid women to increasing morbidity from uterine rupture, placenta praevia and placenta accrete, thus increasing the incidence of emergency obstetric hysterectomy in developed and in developing countries. [1, 3-4] Obstetric hysterectomy is associated with increased

risk of intra-operative complications and severe blood loss which increases maternal morbidity and mortality. Obstetric hysterectomy is associated with increased risk of intra operative and post-operative maternal morbidity and mortality. The high incidence of maternal morbidity and mortality is reported from developing countries. [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 helps 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 catastrophes. [6]

### Material and method

Retrospective study of 15 cases who underwent obstetrics hysterectomy from January 2010 to December 2014 at Bharati Vid yapeeth Deemed University Medical College and Hospital Sangli, a tertiary care hospital was done. All booked or unbooked patient who underwent obstetric hysterectomy were included in the study irrespective of antenatal or intranatal complications. The purpose of the present study was to determine the incidence, age of patient, parity, indications for obstetric hysterectomy, risk factors seen, type of operation, intraoperative and postoperative complications, maternal morbidity and mortality associated with emergency obstetrics hysterectomy.

### Results

The incidence of emergency obstetric hysterectomy in our study was 0.38% [15 in 3900 deliveries]. Table 1 shows age group of patient who underwent hysterectomy. Out of 15 patients 4(26.7%) patients were of 21-25 year age group. In our study 73.3% (11) women were above age group of 26 years. Table 2 shows parity of patient. 1(6.7%) patient was primi parous and 1(6.7%) patient was second para. 2(13.3%) patients were third para. In our study 73.3% (11) patients had parity four or above. Majority of the cases were unbooked (60%).

**Table 1: Age of patient**

Age (years)	No. of Patients	Percentage
21-25	04	26.7%
26-30	07	46.7%
31 above	04	26.7%
Total	15	100%

**Table 2: Parity**

Parity	No. of Patients	Percentage
Para 1	01	06.7%
Para 2	01	06.7%
Para 3	02	13.3%
Para 4	07	46.7%
Para 5 above	04	26.7%
Total	15	100%

Table 3 shows indications for obstetric hysterectomy. Postpartum hemorrhage was observed in 6(40%) patients, ruptured uterus was seen in 3 (20%) patients and morbidly adherent placenta in 3(20%) patients. These were the major indications for obstetric hysterectomy in our study. Major risk factors in our study are elaborated in table 4. Other risk factors were uterine inversion seen in 1(06.7%) and central placenta praevia seen in 2(13.3%) patients. Post partum haemorrhage was the indication in 6(40%) cases. In that placenta praevia was seen in (02)13.33% cases, accidental hemorrhage in (02)13.33% cases, multiple pregnancy with previous LSCS in (01)6.67% case, polyhydramnios in (01)6.67% case. Out of 15 patients (05)33.33% patients had history of previous LSCS. In these cases placenta praevia was seen in (02)13.33% cases, morbidly adherent placenta in (01) 6.67% case, multiple pregnancy in (01)6.67% case, ruptured uterus in (01)6.67% case. Ruptured uterus was seen in (03)20% cases. Out of that previous LSCS was seen in (01)6.67% case, obstructed labour in (01)6.67% case and grand multiparity was the cause for rupture of uterus in (01) 6.67% case. Morbidly adherent placenta was seen in 03(20%) cases. In that previous LSCS was seen in (01)6.67% case, placenta praevia in (01)6.67% case and pregnancy after Asherman’s syndrome with previous LSCS in (01) 6.67% case. One patient had uterine inversion with shock.

Table 5 shows type of operation performed. In 10(66.7%) patients total hysterectomy was performed and in 05(33.33%) cases subtotal hysterectomy was performed. Internal iliac artery ligation was required in 02(13.33%) cases as there

was continuous oozing at operated area. There was bladder injury in 01 (06.7%) case which was repaired. Fever was the most common complication seen in (04) 26.6% cases. Other Post operative complications were wound Infection in 02(13.3%) cases, septicemia in 02(13.3%) cases. One (6.7%) patient had mortality due to septicemia.

**Table 3: Indications**

Indication	No. of Patients	Percentage
Postpartum hemorrhage	06	40%
Ruptured uterus	03	20%
Morbidly adherent placenta	03	20%
Uterine inversion	01	06.7%
Central placenta praevia	02	13.3%
Total	15	100

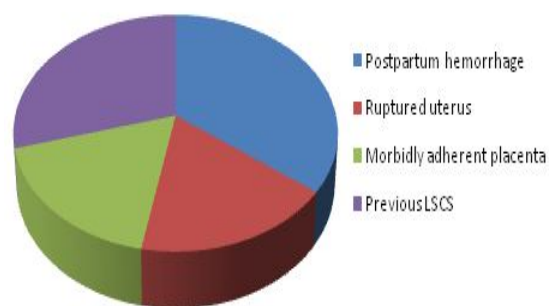


Fig.1 High Risk factors

**Table 4: High Risk Factors**

Postpartum hemorrhage (06)	Ruptured uterus (03)	Morbidly adherent placenta(03)	Previous LSCS(05)
Placenta praevia(02)	Previous LSCS (01)	Previous LSCS (01)	Placenta praevia(02)
Accidental Hemorrhage (02) [01 Pt had previous LSCS]	Grand multipara (01)	Placenta praevia(01)	Morbidly adherent placenta(01)
Multiple pregnancy with previous LSCS (01)	Obstructed labour (01)	Pregnancy after Asherman syndrome with previous LSCS (01)	Multiple pregnancy (01)
Polyhydramnios(01)	Uterine inversion (01)		Ruptured uterus (01)

**Table5:Type of Operation**

Type of surgery	Number of cases
Total hysterectomy	10(66.7%)
Subtotal hysterectomy	05(33.33%)
Total	15(100%)

**Discussion**

Obstetric hysterectomy still is an important tool for the obstetrician. Expert and experienced surgeons in this operation can save lives in catastrophic rupture of the uterus or intractable PPH. 15 obstetric hysterectomy were performed to save the lives of obstetric patients with antenatal, intranatal or postnatal complications. Incidence of emergency obstetric

hysterectomy in the present study was 0.38% which is similar to many other studies.<sup>[1-7]</sup> The incidence was in the same range as reported by Kant et al 40%.<sup>7</sup> Most of our patients were above age of 26years(73.3%). Only one patient was primiparous (6.7%). This patient was brought with obstructed labour with rupture of uterus with PPH in shock. 13.3% patients were third para. 46.7% patients were fourth para. 26.7% patients were grandmultipara. High association with multiparty was seen by Najam et al.<sup>3</sup> (60%) cases were unbooked and (40%) were booked. Major indications for obstetric hysterectomy were postpartum hemorrhage (40%) and morbidly adherent placenta (20%), ruptured uterus (20%). Similar findings were reported by Kant et al (41.46%) and Agashe and Marathe (60%).<sup>7-8</sup> Central placenta praevia was seen in



2(13.3%) cases and uterine inversion was seen in one (6.7%) patient. Previous LSCS was the high risk factor seen in 05 (33.33%) patients. The commonest cause of post partum hemorrhage in our study was placenta praevia. In placenta praevia, the placenta is attached to the lower uterine segment which does not retract well after placental separation and this leads to postpartum hemorrhage (PPH). Operative intervention and a high incidence of adherent placenta are also contributing factors for PPH. Placenta praevia was seen in 03 (20%) patients and prior cesarean section in 5(33.33%), were the significant high risk factors. The dangerous combination of previous caesarean section, morbid adherent placenta and placenta praevia was seen in our study which is also seen in other studies.<sup>9-10</sup> The incidence of obstetrical hysterectomy due to uterine atony is declining from 42% to 29%. Use of uterotonic and haemostatic agents, surgical technique like internal iliac artery ligation had probably decreased incidence of obstetric hysterectomy due to uterine atony. While the incidence due to abnormal placentation is increasing from 25% to 41%<sup>11</sup> Due to increased rate of caesarean section incidence of abnormal placental insertion, invasion anomalies are increasing. In 66.7% of the cases, total hysterectomy was performed and in 33.33% cases subtotal hysterectomy was performed. To do total hysterectomy during caesarian section or immediately after delivery is difficult. As 02(13.3%) patients had continuous oozing from vault, they required internal iliac artery ligation. Bladder injury was repaired in 1(06.7%) case. Thus (20%) patients required additional surgeries in our study. Fever was commonest post operative complication

seen in 4 (26.7%) cases. Wound infection was seen in 2(13.33%) cases. Other complications were septicemia in 2 (13.3%) cases and paralytic ileus in 1(6.7%) case. Postoperative shock, paralytic ileus and fever were the common complications in other studies.<sup>12</sup> There was one maternal death (04%) in our study. That patient had septicemia and DIC. Maternal mortality reported by others are, Kanwar et al. 12% and Siddiq et al 9.7%.<sup>13-14</sup> Praneswari Devi et al reported no mortality in their studies.<sup>15</sup> Prolonged labor, intrauterine manipulation and dormant sepsis, anaemia during pregnancy probably account for these complications. These could be prevented by early referral to well equipped centers. Maternal morbidity and mortality is increased while doing obstetric hysterectomy as most of the time patients are in adverse condition when referred.

Obstetric hysterectomy is a life saving procedure in certain obstetrics conditions. Maternal morbidity and mortality is increased while doing obstetric hysterectomy. Decision should be prompt and surgery should be done by an experienced surgeon. This will reduce maternal morbidity and mortality. Obstetrician should be trained to perform this procedure. Even though obstetric hysterectomy is a life saving measure, this can be prevented by preventing obstetric complications by providing good antenatal care, identification of high risk cases and timely referral of such cases. Active management of labor, early recognition of complications, timely referral, and easy availability of transport, blood and blood component transfusion facilities can prevent this surgical procedure. Good antenatal care, mass education about delivery by trained dais in remote areas or

hospital delivery can prevent such emergencies. Identifications of high risk cases and timely referral to good institution can prevent obstetric hysterectomy in many patients. Patients should be counseled about various contraceptive measures to prevent repeated pregnancies and their complications. Every obstetrician should be trained to perform Obstetric hysterectomy. Timely use of this skill can help in reducing the maternal morbidity and mortality.

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