

**OBSTETRIC HYSTERECTOMY- EMERGENCY SITUATION**Rajni Priyanka<sup>1</sup>, Chitra Sinha<sup>2</sup><sup>1</sup>Senior Resident, Department of Obstetrics and Gynaecology, Patna Medical College Hospital, Patna, Bihar.<sup>2</sup>Associate Professor, Department of Obstetrics and Gynaecology, Patna Medical College Hospital, Patna, Bihar.**ABSTRACT****BACKGROUND**

Hysterectomy can be performed for obstetric complications at any period of gestation to save the life of patient. It is performed after vaginal delivery, or during caesarean section for antepartum haemorrhage, postpartum haemorrhage, or rupture uterus, or due to morbidly adherent placenta. We wanted to study the incidence of obstetric hysterectomy, its indications, the demographic profile, and postoperative maternal complications in patient attending the labour room emergency of Patna Medical College Hospital, Patna.

**METHODS**

Patients in this study group were selected from Emergency Obstetric Unit of Patna Medical College & Hospital, Patna, who had undergone hysterectomy for obstetric indications like APH, PPH and rupture uterus. Patients who underwent hysterectomy for some early pregnancy complications such as pregnancy termination followed by perforation and sepsis & some rare cases like rupture cornual pregnancy or perforating hydatidiform mole were also included in this study. This is an observational study conducted from January 2017 December 2018.

**RESULTS**

During the study period, there were 14,895 deliveries, out of which 96 cases underwent EOH giving an incidence of 0.6%. The main causes of EOH were morbidly adherent placenta (43.7%), rupture uterus (33.3%), atonic PPH (15.6%) & early pregnancy complications (7.2%).

**CONCLUSIONS**

There is marked increase in the incidence of placenta accreta and rupture uterus leading to obstetric hysterectomy.

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**BACKGROUND**

Obstetric hysterectomy is a lifesaving procedure which is done when medical management or conservative surgeries fail to improve the situation.

The common indications for which it is performed are PPH, APH, ruptured uterus and other obstetric indications. It is done to control intractable obstetric haemorrhage due to uterine atony or to prevent haemorrhage from a morbidly adherent placenta or placenta previa.

Morbidly adherent placenta is one of the leading cause of obstetric hysterectomy due to increasing number of caesarean sections.<sup>1,2</sup> In spite of the advances in medical as well as surgical management, atonic PPH is still an important indication for emergency obstetric hysterectomy.<sup>3</sup> It is performed either after vaginal delivery to control PPH complications or during caesarean section due to excessive bleeding, rupture uterus or morbidly adherent placenta.

Sometimes for early pregnancy complications like perforating hydatidiform mole with septate uterus, ruptured cornual pregnancy and septic abortion; hysterectomy is performed.

It is always a dilemma for the surgeon to choose between saving the uterus V/s sacrificing the uterus. So, the surgeon should take a balance decision in these emergency situations.

In these cases, the patients are in critical condition. So there must be intensive resuscitation and monitoring before the surgery, during the surgery and after the surgery.

The decision of performing total or subtotal hysterectomy will depend on the indication of the hysterectomy. If the bleeding is from the lower uterine segment especially due to placenta accreta/percreta, then total hysterectomy is performed. In cases of rupture uterus, the type of hysterectomy will depend upon the site of the rupture. Sometimes this will depend upon the patient's condition.

Obstetric hysterectomy is an emergency situation done to save mother life. It is a very difficult situation for the operative surgeon to decide between a mother's life and sacrificing her future fertility. Most of the times the operation is carried out when the condition of the pt. is too critical to withstand the risk of anaesthesia or surgery.

Despite advances in medical and surgical fields, postpartum haemorrhage continues to be the leading cause of maternal morbidity and mortality. It is generally

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performed when all conservative measures have failed to establish haemostasis in life threatening haemorrhage. It is also done in some early pregnancy complications following pregnancy termination such as perforation and sepsis & some rare cases like rupture cornual pregnancy or perforating hydatidiform mole.

The predominant indication for obstetric hysterectomy was abnormal placentation (Placenta previa/accreta), rupture uterus, atonic PPH.

The risk factor included previous caesarean section, scarred uterus, older age group, high parity.

**METHODS**

This is an observational study done for January 2017 to December 2018 to analyse the incidence, indication & maternal complications in patient undergoing obstetric hysterectomy. Patient in this study group were selected from emergency obstetric unit of Patna Medical College & Hospital, Patna in whom hysterectomy were performed for obstetric indications like uterine atony, rupture uterus, morbidity adherent placenta. This Study also included hysterectomy done for early pregnancy complications like perforation following pregnancy termination perforating H. mole, resection of corneal pregnancy.

The women were reviewed regarding age, parity, socioeconomic status, residential background, high risk factors, indication and maternal outcome.

**RESULTS**

There were 14,895 deliveries during the study period from January 2017 to December 2018. Out of this 5430 had caesarean section while 9465 delivered vaginally. The overall incidence of obstetric hysterectomy was 0.64%.

Variables	No. of Patient	%
<b>Age</b>		
21-25	30	31.25%
26-30	54	56.25%
31-36	8	8.3%
35-40	4	4.1%
<b>Parity</b>		
1	06	6.2%
2	14	14.5%
3	28	29.1%
>3	48	50%
<b>Residence Background</b>		
Rural	76	79.1%
Urban	20	20.8%
<b>Socioeconomic status</b>	<b>Urban</b>	<b>Rural</b>
Middle income group	14	18
Lower income group	6	58

**Table 1. Demographic Features of Patient**

Maximum patient belongs to age group 26-30 yrs. with maximum age of 39 yrs. and minimum age was 21 yrs. Most of them were multiparous (50%), Only 6.2% cases were

primi parous. Most of the patient belongs to rural background (79.1%) & lower socioeconomic status.

Parity	Rural	Urban	Total
1	3	5	08
2	07	05	12
3	22	6	28
>3	44	4	48
<b>Total</b>	<b>76</b>	<b>20</b>	<b>96</b>

**Table 2. Relation Between Residential Background and Parity**

Chi square = 23.8  
d.f. = 3  
P value-0.000

The association between residential background and parity is highly statistically significant with more no. of cases belongs to rural area.

Indication	Rural	Urban	Total
Morbidity adherent placenta	33	9	42
Rupture uterus	25	7	32
Atonic PPH	14	1	15
Early pregnancy complications	4	3	7
<b>Total</b>	<b>76</b>	<b>20</b>	<b>96</b>

**Table 3. Association Between Indications and Residential Background**

Chi square = 11.5  
d.f. = 3  
P value 0.009

The association between residential background and obstetric hysterectomy is highly significant. 79.1% of patient belongs to rural background.

Indications	No. of Patient	%
Morbidly adherent placenta	42	43.7%
Rupture uterus	32	33.3%
Atonic PPH	15	15.6%
Early Pregnancy complications	7	7.2%

**Table 4. Indication for Obstetric Hysterectomy**

The most common indications for emergency obstetric hysterectomy (EOH) in our study was morbidly adherent placenta (43.7%) followed by rupture uterus (33.3%) and atonic PPH (15.6%), 7% of hysterectomy were performed for early pregnancy complications.

	No. of Patient	%
Need of Blood transfusion	96	100%
ICU care	96	100%
Need of ventilator	10	10.4%
Febrile morbidity	32	33.3%
Paralytic Ileus	9	9.3%
Septicaemia	6	6.2%
Wound infection	11	11.4%

Bladder injury	6	6.2%
Bowel injury	1	1.04%
Ureteric injury	Nil	0
VVF	1	1.04%
DIC	4	4.16%
<b>Table 5. Maternal Complications</b>		

In all cases blood transfusion was required and patient were kept in ICU for intensive monitoring and care. Among them 10.4% of patient needed ventilator support. Incidence of febrile morbidity was seen in 33.3% cases, paralytic ileus in 9.3%, Septicaemia in 6.2% and 4.16% patient developed Disseminated intravascular coagulation (DIC). Intra operative complications like bladder injury was seen in 6.2% cases, bowel injury in 1.04%. One patient developed VVF. Wound infection was seen in 11.4% cases.

There were 8 maternal deaths giving a maternal mortality of 8.3%/ These were due to DIC in 2 patient's acute blood loss in 4 patients and septicaemia in 2 patients.

## DISCUSSION

Incidence of emergency hysterectomy is the present study was 0.6% which is higher than that in many others studies Table (6).<sup>4-10</sup>

Name of Author	Percent
Sinha & Mishra et al (2001)	0.38
Mukharjee et al (2002)	0.15
Kanwar et al (2003)	0.32
Forna F et al (2004)	0.08
Kant & Wadhvani et al (2005)	0.26
Ahmad and Mir et al (2007)	0.26
Shirodkar et al (2016)	0.16
Present study	0.64
<b>Table 6. Incidence of Emergency Obstetric Hysterectomy by Different Authors</b>	

It is because the present study is done in a tertiary care center in this region, most of patient were referred from rural areas. The incidence of obstetric hysterectomy due to placenta accreta and rupture uterus is increasing now a days is because of increasing incidence of caesarean section.<sup>11</sup> Chances of repeat caesarean section thus increases, this ultimately increases the incidence of placenta previa and accreta. Over the years the incidence of obstetric hysterectomy has increased, and the indications have changed from atonic PPH to morbidly adherent placenta.

As our hospital is a tertiary care center patient has been referred from the rural area as well as private institution. This is one of the important factors from increasing incidence of obstetric hysterectomy.

Morbidly adherent placenta was the commonest indication for emergency obstetric hysterectomy in present study accounting for 43.7% followed by rupture uterus accounting for 33.3% cases. This was almost similar to study conducted in Turkey<sup>12</sup> were morbidly adherent placenta account for 40% cases and in UK<sup>13</sup> contributing to 38% of

cases. In a Cohort study for Dublin, Ireland, Placenta accreta in the main indications increasing significantly from 5.4-46.5% in last 4 decades.<sup>14</sup>

Most of these women were cases belonging to rural area resulting from neglected obstetric care and delayed transport to tertiary care center. In present study 79.1% cases belong to rural areas. This was similar to 69.9% reported by Sinha<sup>4</sup> and 69.7% reported by Gupta.<sup>15</sup>

Almost all patient required ICU care & blood transfusion.

Febrile morbidity was the most common maternal complication seen in 32% of cases which was comparable to Jadhav<sup>16</sup> et al and Bushra<sup>17</sup> et al. The other complications were wound infection (11%), Paralytic ileus (9%), Septicaemia (6%), Bladder injury (6%) comparable to study.

There were 8 maternal deaths giving a maternal mortality of 8.3%/ These were due to DIC in 2 patients acute blood loss in 4 patients and septicaemia in 2 patients. Comparable to studies conducted by Tenizkhan<sup>18</sup> et al reported 8.6% & Shaik<sup>19</sup> N et al reported 12.19%.

## CONCLUSIONS

The rising caesarean delivery rate has a marked effect on the incidence of placenta accreta, and rupture uterus leading to obstetric hysterectomy. The use of newer uterotonic, conservative procedures like balloon tamponade, B-Lynch sutures, uterine and internal iliac ligation, uterine artery embolization for control of atonic haemorrhage lead to decreased obstetric hysterectomy due to atonic PPH.

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