

# Emergency Obstetric Hysterectomy – One Year Review At Allied Hospital, Faisalabad

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## ABSTRACT

**Objective:** To study the cases of obstetric hysterectomy performed over a period of one year (Jan. 2008 to Dec. 2008) in a teaching hospital to determine the incidence, indications, associated risk factor and maternal outcome of patients with a view to suggest ways of improving outcome.

**Material & Methods:** One year retrospective study of 38 consecutive cases of obstetric hysterectomies performed during the study period were analyzed.

**Result:** Total number of deliveries during the study period were 8988 and 38 emergency obstetric hysterectomies were undertaken; frequency being 0.42%. Only 26.3% women were booked. The most common indication for procedure were uterine rupture, uterine atony and morbidly adherent placenta. Total hysterectomies were undertaken in 73.6% and sub total in 26.3% women. There were 4

(10.5%) maternal deaths. Patients who died were received in critical condition and with massive haemorrhage. Late arrival and non availability of blood because of incooperative attendants were the main factor in maternal mortality.

**Conclusion:** Emergency obstetric hysterectomy remains an essential life saving procedure. Proper antenatal care and early admission in labour ward, training and retraining of traditional birth, attendants, prompt resuscitation and referral of patient in time will go a long way to reduce the incidence of this procedure.

**Key Words:** Emergency obstetric hysterectomy, traditional birth attendant, maternal morbidity & mortality.

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## INTRODUCTION

The procedure of obstetric hysterectomy was originally devised more than 200 years ago as a surgical attempt to manage life threatening obstetric hemorrhage and infection.<sup>1</sup> Horatio Storer performed the first elective Caesarean hysterectomy on 21<sup>st</sup> July 1868 but his patient died 78 hours post-operatively. In 1876, Eduardo Porro succeeded in performing an elective hysterectomy after a Caesarean section on a 25 years old primiparous dwarf who survived after a stormy 40 days post-operative course.<sup>2</sup> Some years later, other less serious clinical indications, such as sterilization, were included, which gave the procedure a bad reputation.<sup>3</sup>

In the last few decades, uncontrolled hemorrhage has become a major indicative factor, causes such as uterine atony, ruptured uterus and placenta previa vary from one area to another or influenced by standards of practice and quality of antenatal care.<sup>4,5</sup> Emergency obstetric hysterectomy is more common in developing countries like ours, because of high incidence of unbooked and improperly supervised deliveries outside

the hospitals. The patient usually present very late in moribund state, with ragged necrotic rents in the uterus, which will require an emergency obstetric hysterectomy to save the lives of the patients, and to give them good quality of life thereafter. The delay in presentation in the hospital, makes emergency obstetric hysterectomy to be associated with high foeto-maternal morbidity and mortality.<sup>6-8</sup> The purpose of present study was to determine the frequency, indication, associated risk factor and maternal outcome of emergency obstetric hysterectomy (EOH).

## MATERIALS AND METHODS

This retrospective study of emergency obstetric hysterectomy was conducted in Allied Hospital, Faisalabad (teaching hospital) over a one year period (Jan. 2008 to Dec. 2008). All the patients who underwent emergency obstetric hysterectomy identified from labour ward registers, operation room record books and intensive care unit register. The parameter analyzed were age, parity, social status,

previous history of caesarean delivery, mode of delivery, indication for obstetric hysterectomy and maternal morbidity & mortality. All data gathered was entered and analyzed using SPSS 10.

## RESULTS

Over the study period, 38 emergency obstetric hysterectomies were performed at Allied Hospital, Faisalabad. During one year period 8988 deliveries including 3109 caesarean section and 5876 vaginal deliveries were conducted. The frequency of obstetric hysterectomy therefore was 0.42%. It was 0.77% after caesarean deliveries and 0.23% after vaginal deliveries. Majority of our patients (52.6%) fall in 30-34 years age group. 47.3% of patients were multiparous with parity > 5 (Table No.1).

Out of 38 patients, 24 (63.1%) patients were delivered by caesarean section. Highest frequency of procedure (73.6%) was found among the un-booked patients, while 10 (26.3%) were booked. Booking status showed statistical significant difference in the incidence of procedure (Table No.2).

Rupture uterus (36.8%) was the commonest indication for the procedure followed by uterine atony (26.3%) and morbidly adherent placenta (15.7%) (Table No.3). Out of 14 cases of uterine rupture, 13 cases were mismanaged by traditional birth attendants due to injudicious use of oxytocin with previous caesarean deliveries and one case was due to traumatic rupture due to fall from rickshaw vehicle. There were 10 cases of atonic PPH in grand multipara, 6 cases after normal vaginal delivery and 4 after caesarean section. Five cases of obstetric hysterectomy were due to caesarean section for placenta previa and six cases for adherent placenta. Out of these six cases 2 patients were diagnosed on doppler USG whereas 4 patients were un-booked and remain undiagnosed and emergency caesarean section done followed by caesarean hysterectomy.

There was a case of pregnancy with multiple fibroids, caesarean section was performed but it ended up in obstetric hysterectomy due to massive haemorrhage. One interesting case was of Von-Willebrands disease, she was booked patient and went into labour. Emergency caesarean delivery was performed but inspite of massive transfusions and platelet concentrates, her bleeding did not stop and obstetric hysterectomy performed to save her life.

Post-op complications were rare in this study because all the hysterectomies were performed by consultants

in charge, so cadre of surgeon do matter in preventing post-op complications. Commonest complications were post operative anemia and wound sepsis followed by conculopathy due to massive haemorrhage. Three patients were re-opened due to disturbed clotting profile. Maternal mortality occurred in 4 cases (10.5%), all due to complications arising from severe haemorrhage.

**Table-1**  
**Profile of the patient undergoing obstetric hysterectomy (n=38)**

<b>Age Distribution</b>		
<b>Age (years)</b>	<b>Number</b>	<b>% age</b>
15-24	4	10.5
25-29	11	28.9
30-34	20	52.6
> 35	3	7.8
<b>Parity</b>		
0	2	5.2
1-2	8	21.0
3-4	10	26.3
> 5	18	47.3
<b>Booking Status</b>		
Booked	10	26.3
Unbooked	28	73.6

**Table-2**  
**No of previous caesarean deliveries, Mode of delivery and type of obstetric hysterectomy (n=38)**

<b>No. of previous caesarean deliveries</b>		
	<b>Number</b>	<b>% age</b>
1	13	34.2
2	6	15.7
3	4	10.5
4	1	2.6
<b>Mode of delivery</b>		
Vaginal delivery	14	36.8
Caesarean delivery	24	63.1
<b>Type of hysterectomy</b>		
Total	28	73.6
Sub total	10	26.3

**Table-3**  
**Causes of haemorrhage in women undergoing**  
**emergency obstetric hysterectomy (n=38)**

Causes*	Number	% age
Rupture uterus	14	36.8
Uterine atony	10	26.3
Morbid adherent placenta	6	15.7
Placental abruption	2	5.2
Placenta previa	5	13.1
Fibroids	1	2.6
Others**	7	18.4

\* Include 7 women with more than one cause of haemorrhage, thus the total exceeds 100%

\*\* Include one case each of uterine infection, von-Willebrands disease, two cases of uterine over distension and 3 cases of broad ligament haematoma after prolonged labour mismanaged at home.

## DISCUSSION

The frequency of emergency obstetric hysterectomy (EOH) in the present study is 0.42%, it is similar to the frequency reported from Bahawalpur Pakistan but very low in comparison to the reported frequency from Peshawar Pakistan.<sup>9,10</sup> The reported rate of EOH in the literature from developing countries is very low (0.4/1000 – 0.2/1000 deliveries).<sup>11,12</sup> The difference in the incidence of EOH may be explained by the increase number of un-booked cases for antenatal care and increased number of referred cases with detrimental health condition.

Majority of our patients were in 30-34 age group (52.6%) and were multiparous > 5 (47.3%). Similar trend was observed by Ahmad and Baclay.<sup>13,14</sup>

The most frequent indication for EOH in present study was rupture uterus (36.8%) followed by uterine atony of 26.3%, morbid adherence of placenta 15.7% almost similar results were reported by different studies from Pakistan.<sup>9,10,15,16</sup> While the most frequent reasons reported from developing countries were morbid adherence of placenta and uterine atony.<sup>17,18</sup>

The pattern is typical in the third world countries. Abnormal placentation has emerged as an important etiologic factor since last two decades as supported by world wide reports for example Birmingham<sup>19</sup> 50%, Kuwait<sup>20</sup> 64% and Italy<sup>21</sup> 55%. Well known risk factor for morbid adherent placenta (MAP) are placenta previa and previous caesarean birth. The EOH has

been recommended as life saving procedure for MAP.<sup>22</sup>

Sub total hysterectomy was not a commonly performed surgery in our study as was in other studies.<sup>23</sup> These studies suggested that sub total hysterectomy may be superior because of lower degree of haemorrhage, simple and speedy procedure. However problems with the remnant cervical stump such as discharge and cyclical bleeding are common. There is always possibility of subsequent stump cancer and regular cytology follow-ups are necessary. Moreover subtotal hysterectomy may not be effective in case of placenta accreta where the source of bleeding is the cervical branch of uterine artery. In our study, it was most probably the surgeon's own decision about which kind of hysterectomy to be performed, depending upon the clinical situation and their own surgical experience. The present study confirm the previous observation that EOH is associated with perioperative maternal morbidity and mortality.<sup>9,10</sup>

Post operative anemia and wound sepsis were the commonest complications which is also the finding from Nigeria<sup>6,7,8</sup>. This was because of obstetric neglect they suffer before referral, with resultant hypovolaemic shock from massive obstetric haemorrhage and sepsis.

The maternal mortality in our study was 10.5% which is almost similar to the reported studies from Pakistan<sup>9,10</sup> but very high in comparison to developed countries.<sup>24,25</sup> All the maternal deaths occurred in unbooked patients and clinic defaulters and were due to late arrival to hospital and post-operative shock, which was secondary to the moribund state of the patients at presentation rather than the operative procedure.

## CONCLUSION

Emergency obstetric hysterectomy when performed in selected cases at an appropriate time helps in bringing down maternal mortality. The high risk group of women, therefore, should be delivered by skilled birth attendants and the risk of this procedure can be reduced by reducing the number of unnecessary caesarean sections. Mobile general surgeons, who are not qualified in the field of obstetrics are performing caesarean section unnecessarily all over the Country especially in peripheries. This has led to increase in the incidence of maternal morbidity & mortality.

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