EMERGENCY OBSTETRICAL Hysterectomy (EOH):
A LIFE SAVING PROCEDURE IN OBSTETRICS

NASIMA SIDDIQ, ASIFA GHAZI, SHAZIA JABBAR, TEHMINA ALI
Department of Gynaecology and Obstetrics (Unit III), Dow University of Health Sciences, Karachi

ABSTRACT
Objective: To assess the frequency, causes and sequelae of Obstetrical Hysterectomies in a tertiary care unit.
Design and Duration: Prospective, observational study from 1st Jan. 2001 to 28th Feb. 2006.
Setting: Department of Gynaecology & Obstetrics, Unit III, Civil Hospital, Karachi.
Patients: All Obstetrical Hysterectomies done during the study period.
Methodology: Out of 11,032 obstetrical patients admitted during the study period, 62 underwent EOH. Their biodata, clinical features, investigations, blood transfusions, operative procedures, morbidity, mortality and follow-up was recorded on a proforma. The data thus obtained was compiled and analyzed.
Results: The frequency of EOH was 5.6/1000 obstetric cases. Majority (85.5%) of the cases were referred from elsewhere, while only 9 (14.5%) cases were booked. Multipara and grand multipara (94%) cases were mostly involved and the commonest cause was ruptured uterus(34%). The maternal mortality was 9.7%.
Conclusion: Proper antenatal care, early referral, liberal blood transfusion, timely decision and surgery by an experienced obstetrician are milestones on the road to justify EOH.

KEY WORDS: Emergency Obstetrical Hysterectomy, Ruptured Uterus

INTRODUCTION
Obstetrical Hysterectomy refers to the surgical removal of the pregnant or recently pregnant uterus. The term includes Hysterectomy with the pregnancy in-situ, as well as operations related to the complications of delivery. This procedure is indispensable for management of intractable obstetric haemorrhage, unresponsive to other measures. Skills necessary for its performance are best acquired under an experienced mentor during scheduled non-emergency cases. This life saving obstetric procedure has been in use for more than 100 years. Edward Porro (1876) published the first case report of the procedure.

Majority (55%) of Caesarean hysterectomies are being done for post-partum haemorrhage (PPH), caused by uterine atony in 2/3rd of the cases. Although emergency indications are less common now, as compared to the past because of uterotonie agents and less invasive alternative methods like B lynch suture, uterine artery or internal iliac artery ligation (IAL).

Ruptured uterus is the second most common indication for EOH, 60% women undergoing the procedure had a previous history of Caesarean delivery. Placental disorders are the third most frequent cause of EOH, most common being placenta accreta, with or without an associated praevia. Women with neglected infections leading to myometrial abscesses or intractable uterine atony, requiring emergency hysterectomy are few nowadays because of modern anti-microbial therapy.

PATIENTS & METHODS
This prospective, observational study was conducted from Jan. 2001 to Feb. 2006 in the Labour room and Emergency resuscitation Unit of Civil Hospital, Karachi. A proforma containing the patients biodata i.e. maternal age, parity, booked or non-booked, details of previous obstetrical history, previous Caesarean section, antenatal...
complications, mode of delivery, use of prostaglandins, misoprostol, oxytocin, estimated pre-operative, operative and post-operative blood loss, blood transfusions needed, maternal morbidity and mortality were recorded. All EOH were performed after 28 weeks of gestation. Prophylactic antibiotics and blood transfusions were given in all the cases.

RESULTS

A total of 11,032 obstetrics cases were seen during the study period. Amongst these there were 62 cases of EOH giving rise to a frequency of 5.6/1000 cases. Only 9 (14.5%) cases were booked, while the remaining 53 (85.5%) were non-booked. Referred cases from private maternity homes and level I and II hospitals accounted for 29 (46.77%) cases, while those referred from interior Sindh and Balochistan provinces were 24 (38.7%). Parity ranged from 0-11, only four (6%) cases were para-0-1, the remaining 58 (94%) being multipara or grand multipara.

The commonest cause of EOH was ruptured uterus, seen in 21 (34%) patients. Placental causes were responsible for 20 (32%) cases and PPH 19 (31%) as depicted in Table I. Blood transfusion was given to all the patients, ranging from 2-7 units. Total abdominal hysterectomies were done in 48 (77%) and subtotal in 14 (23%) patients.

Wound infection and DIC occured in 10 (16%) cases each after EOH (Table II). Bladder rupture was seen in 6 (10%) patients, it was a complication of EOH in two cases while in four it was associated with anterior rupture of the uterus and broad ligament haematoma. Six (9.7%) patients expired in the series, while the rest 56 (90%) were discharged within 7-21 days. The number of live births were only 14 (23%), the remaining being still births or intra-uterine deaths.

DISCUSSION

New surgical techniques, multidisciplinary approach and uterotonic agents have reduced the incidence of EOH, though it still remains a life saving procedure in emergency obstetric practice. The frequency of EOH in this study was 5.6/1000 cases which is higher than that reported by Anita and Kavita (0.26%)2. This could be due to the fact that our hospital is a tertiary referral center linked to level I and II hospitals, where most of cases are dealt by traditional birth attendants (TBAs) and delayed referral results in a moribund condition of the patients.

Ruptured uterus was the commonest cause of EOH in our study accounting for 34% cases, other authors however reported PPH as the commonest indication of EOH3. In our study PPH and placental causes were almost equal, (31%) and (32%) respectively; Bowmen and colleagues5 in their series have descibed figures of 31% and 55% for the same. The incidence of PPH quoted by Ambiye and Venkatraman4 was 67.8%. Among placental causes were placenta previa and abruptio placenta seen in 10 (16%) cases each. Most of these cases were due to placenta accreta following previous Caesarean section and hypertension. In some series placenta accreta has increased in frequency as an emergency indication (65%) for hystereectomy1.

Gas gangrene and infections were responsible for two (3.22%) cases of EOH, though uterine infections and sepsis is rare in the developed world due to the aggressive management of infections. Six (9.7%) patients expired in our study; most of these patients had DIC, placenta accreta and infections. Other series also have reported similar mortality rates2,3,7,8.

CONCLUSION

Following recommendations can reduce maternal mor-

<table>
<thead>
<tr>
<th>Complications</th>
<th>No.</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Febrile Morbidity</td>
<td>16</td>
<td>25.81</td>
</tr>
<tr>
<td>DIC</td>
<td>10</td>
<td>16.13</td>
</tr>
<tr>
<td>Wound Infection</td>
<td>10</td>
<td>16.13</td>
</tr>
<tr>
<td>UTI</td>
<td>5</td>
<td>8.06</td>
</tr>
<tr>
<td>Broad Lig. Hematoma</td>
<td>4</td>
<td>6.45</td>
</tr>
<tr>
<td>Bladder Rupture</td>
<td>2</td>
<td>3.22</td>
</tr>
<tr>
<td>Repeat Laparotomy</td>
<td>2</td>
<td>3.22</td>
</tr>
<tr>
<td>Thrombophlebitis</td>
<td>1</td>
<td>1.61</td>
</tr>
<tr>
<td>Mortality</td>
<td>6</td>
<td>9.68</td>
</tr>
</tbody>
</table>

Table II. Morbidity and Mortality in EOH
bidity and mortality associated with EOH:

1. **Contemporary Tourniquet method:**
   Applying tourniquet at the lower end of uterine incision reduces blood loss.

2. **Clamping of Vascular pedicles:**
   All vascular pedicles supplying the uterus are clamped, severed and dropped from the operative field. Delaying suture ligation until all six vascular bundles are controlled results in prompt haemostasis.

3. **Timely Decision:**
   EOH should be timely done by an experienced obstetrician.

**REFERENCES**


6. Young JH. Caesarean Section. The history and development of the operation from the earliest times London: H. K. Lewis & Co.; 1944.
