ORIGINAL ARTICLE

EMERGENCY PERI PARTUM HYSTERECTOMY-A LIFE SAVING PROCEDURE

Anisa Fawad, Ansa Islam, Humaira Naz, Talat Nelofar, Aziz-un-Nisa Abbasi

Department of Obstetrics & Gynaecology, Ayub Medical College & Teaching Hospital, Abbottabad-Pakistan

Background: Sub-total abdominal hysterectomy is a surgical procedure in which body of the uterus is removed while ovaries and cervix are preserved. The study was done with the objectives of assessing the frequency of peripartum hysterectomies, common indications and risk factors associated with this surgery. The postoperative complications including the severity of anaemia in these patients and need for blood transfusion and use of blood products like fresh frozen plasma and platelet concentrates were also studied. **Methods:** The study was based on the review of the records of Gynae 'A' Unit, Ayub Teaching Hospital, Abbottabad from January 2011 till December 2012. Data was collected from the unit record and patient's personal files. All the patients who underwent emergency peripartum hysterectomy were included in the study. **Results:** During this study period there were 6535 total deliveries in the unit, 2153 vaginal deliveries and 1786 caesarean sections. Emergency perpartum hysterectomy was needed in 72 patients. In the majority of the patients the gestational age was at term. The commonest indications for this operation was haemorrhage (placental abruption) 26 patients (36%) followed by ruptured uterus in 18 patients (25%), prolonged and obstructed labour promoted uterine atony needing hysterectomy in 13 patients (18%). Placenta previa major degree needed hysterectomy in 9 patients (12.5%) while placenta increta and chorioamnionitis each accounted for 3 cases (4.2%). At admission the majority of the patients were severely anaemic 31 patients (43.05%). The most important risk factor identified was hypertensive disorders of pregnancy 26 patients (36%), followed by uterine atony in 13 patients (18.05%). **Conclusion:** High risk obstetric patients, prone to peripartum hysterectomy, should be identified by health personnel working in the rural areas and should be timely referred to the hospitals where appropriate facilities are available for the management of such patients.

Keywords: Peripartum hysterectomy, Sub-total abdominal hysterectomy, placental abruption

J Ayub Med Coll Abbottabad 2015;27(1):143–5

INTRODUCTION

Obstetric haemorrhage is a life threatening event. It is a still a major cause of maternal mortality across the world. Although the advances have been made in the conservative medical and surgical treatments of major obstetric haemorrhage, emergency peripartum hysterectomy remains a lifesaving operation in the management of intractable haemorrhage unresponsive to conservative measures. The operation may be needed during caesarean section or after vaginal delivery.

The history of operation goes back to Edward porro (1876) who published his first case report of this procedure. Ever since significant advances have been made in emergency anaesthesia and surgical techniques, even then emergency peripartum hysterectomy carries morbidity and mortality worldwide, especially in developing countries because of serious condition of the patients and due to underlying risk factors for which this operation is needed.[1]

The purpose of present study was to determine the incidence, indications, associated risk factors and complications of emergency peripartum hysterectomy.

MATERIAL AND METHODS

This study was carried by review of the record of all the patients who had emergency peripartum hysterectomy in Gynaecology and Obstetrics Unit-A, in Ayub Teaching Hospital, Abbottabad from 1st January 2011 till 31st December 2012. The data was collected from unit and operation registers further verification was done by collecting case files of all the patients.

Maternal socio demographic data and past medical, surgical and obstetrical history was noted. Pregnancy, labour and delivery events including details of antenatal care received, gestational age, any risk factor in pregnancy, any manipulation outside the hospital, duration of labour, mode of delivery, indication for any operative intervention, circumstances in which emergency peripartum hysterectomy was performed, estimated blood loss, need for blood transfusion or any other blood products and details of post-operative course were all noted. The data was analysed using SPSS version 16.

RESULTS

In two years' time period there were 6535 deliveries in the unit. Among them there were 1786 caesarean

sections and 2153 vaginal deliveries. Emergency peripartum hysterectomies were performed in 72 patients and incidence of Peripartum hysterectomies was -1.1%. All the hysterectomies were performed during caesarean section. All the patients were un-booked and belonged to poor socio economic group. The mean gestational age at the time of operation was 37 weeks.

The most common indication for emergency peripartum hysterectomy was massive placental abruption secondary to hypertensive disorders of pregnancy 26 (36.1%), laporotomy for ruptured uterus was performed in 18 patients (25%), 13 patients (18%) had uterine atony during caesarean section necessitating hysterectomy. Placenta praevia major degree and increta resulted in hysterectomy in 12 (16.7%) patients. Chorioamnionitis was main indication for hysterectomy in 3 (4.2%) patients.

Most of the patients included in this study were severely anaemic as shown in table 3 needing fresh blood transfusions, fresh frozen plasma and platelet concentrates. Risk factors for emergency peripartum hysterectomy are shown in table 5 while postoperative complications are shown in table 6.

Table-1: Age

Age	N	%
26–30	10	13.9
31–35	27	37.5
36–40	28	38.9
>40	7	9.7

Table-2: Parity

Parity	N	%
Gravida II & III	9	12.5
MG IV & V	24	33.3
Gravida VI & above	39	54.2

Table-3: Severity of anaemia

Indications	N	%
Mild anaemia Hb% <10 gm/dl	3	4.16
Moderate anaemia Hb% between 7–9 gm/dl	13	18.05
Severe anaemia Hb% <7 gm/dl	31	43.05
Very severe anaemia Hb% <4 gm/dl	25	34.72

Table-4: Blood and Blood products needed

No. of Patients	No. of fresh blood bags	Fresh frozen plasma	No. of platelet concentrates
56	4–6	10 units	10 units
13	2	0	0
3	1	0	0

Table-5: Risk factors for emergency peripartum hysterectomy

Risk factors	N	%
Hypertensive disorders of pregnancy	26	36.11
Previous c-section scar dehisence (trial of labour at home)	6	8.33
Injudicious use of oxytocins, prostaglandins	12	16.66
Uterine atony	13	18.05
Placenta praevia major degree/increta	12	16.66
Chorioamnionitis	3	4.16

Table-6: Postoperative complications

Postoperative complications	N	%
Uneventful	14	19.44
Wound infections	15	20.83
Wound dehiscence	2	2.77
Thromboembolic disease	4	5.55
Blood transfusion reactions	10	13.88
Acute renal failure	6	8.33
Psychiatric disturbances	21	29.16

DISCUSSION

The incidence of peripartum hysterectomy in the unit was 1.1 percent. The frequency varies widely both within the country and internationally. In Pakistan the incidence is 0.30% in Lahore, 0.42% in Faisalabad, 0.42% in Hyderabad (Sind) 0.56% in Karachi and 0.4% in Quetta (Baluchistan).[2–6]

At international level the incidence is 0.048% in UK, 0.05% in Saudi Arabia 0.063% and 0.085 in Sydney, Australia.[7–10] The incidence of the emergency peripartum hysterectomy in our unit was high as compared to the rest of the country as Ayub Teaching Hospital is the tertiary level hospital receiving neglected and handled cases form periphery with large catchment area while the incidence is markedly low in developed countries due to good antenatal care and improvements in socio economic and nutritional status. The reason for this very wide variation in different countries and even within a country in different institutions is dependent upon the type of obstetrical population, the trends of antenatal care, the awareness at the community level to avail antenatal care, provision and utilization of health care facilities and medical and surgical treatments available.

The relative contribution of uterine atony, placenta previa, morbidly adherent placenta, massive abruption and chorioamnionitis to emergency peripartum hysterectomy varies. In our country in the background of poor socioeconomic status, poor nutritional status and lack of antenatal care, the common indications are still ruptured uterus, uterine atony, massive antepartum haemorrhage (placental abruption and placenta previa) and infections.[11] While in the developed world their trends have changed. In 1980's the haemorrhage from uterine atony was top on their list for emergency Peripartum hysterectomy but now abnormally adherent placenta due to increasing caesarean section rate is commonest indication.[12] In developed countries the caesarean section rate has increased from 10% in 1980's to 20–25% in the latest years. This rise promotes abnormal placentation in subsequent pregnancies and the risk of placenta accretes linearly increases with increasing numbers of caesarean section.[13]

Abnormal placentation has become a primary indication for emergency peripartum hysterectomy. The identification and the management of this condition is particularly relevant in dealing with haemorrhage during and after delivery. Antenatal identification of morbidly

adherent placenta is the first step in the process as an early awareness of this allows planning and preparation for delivery. It may allow a planned peripartum hysterectomy for the women who do not desire further children and plans can be made for conservative measures for those who wish to preserve their fertility. Although this problem is more in developed countries a study from Lahore has pointed out that abnormal placentation is top on their list for caesarean section and hysterectomies.[14]

Caesarean section itself leads to high risk of emergency hysterectomy due to haemorrhage when no other significant risk factors are present. Repeat caesarean section increases the risk further. In modern obstetrics subtotal hysterectomy is done to save time and lessen the bleeding. The risk of the Carcinoma cervix is much less due to availability effective screening.[15,16] In the majority of our patients with obstructed labour and ruptured uterus, there was a history of injudicious use of oxytocin and prolonged trial of labour even in the patients with previous one or more caesarean sections. Identification of the high risk patients, timely recognition of failure to progress in labour and timely referral to the health facilities is especially needed in the training of LHVs and the doctors working in the periphery.[4] Post-partum haemorrhage is one of the leading causes of maternal mortality in our country. The risk of the maternal death is 1:100,000 deliveries in developed countries and as high as 1:1000 in developing countries. The maternal complications of post-partum haemorrhage include disseminated intravascular coagulation, renal failure and hepatic failure. The conservative management of post-partum haemorrhage involves the use of utererotonics (oxytocin, ergometrin), uterine massage, uterine pacing, B lynch suture application, pelvic vessel ligation and uterine artery embolization. Subtotal abdominal hysterectomy is performed as a last resort to save maternal life when all conservative measures fail.[17,18]

The risk factors associated with emergency peripartum hysterectomy identified in this study are increasing age, parity, un-booked status, previous caesarean sections and handling by untrained personnel in the periphery. Similarly observations are presents in the other studies from different countries.[19]

CONCLUSION

The incidence of peripartum hysterectomies is high in the region as compared to national and international rates. There is a need of interventions at the primary and community level for early identification and referrals to prevent it. Mandatory refresher courses for LHVs and doctors working in the periphery should be arranged at regular intervals so that they can identify the high-risk patients and refer them timely to the hospital.

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Address for Correspondence:
Dr. Anisa Fawad, Department of Gynaecology & Obstetrics, Ayub Teaching Hospital, Abbottabad-Pakistan
Email: maazfawad27@gmail.com