FREQUENCY OF EMERGENCY OBSTETRICAL HYSTERECTOMY, ITS INDICATIONS AND MATERNAL OUTCOME IN SAIDU TEACHING HOSPITAL, SWAT.

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ABSTRACT

Background: Emergency obstetrical hysterectomy (EOH) is one of the most common major surgical procedures performed in gynecology and obstetrics. It is a life saving procedure in case of severe hemorrhage.

Aims and objectives. The objective of this study was to determine the frequency, indications and maternal outcome of emergency obstetrical hysterectomy.

Study Design: Descriptive study.

Place and duration of study: Study was carried out in the department of Obstetrics and Gynecology, Saidu Teaching Hospital, Swat from January 2007 to December 2011.

Patients and Methods: During the study period a total of 29570 patients were delivered. Out of those 254 patients underwent emergency hysterectomy. Records of all the patients were analyzed. The parameters analyzed were age, parity, socioeconomic status, booking status, indication for operation, operative notes, maternal outcome complications and post-operative status.

Results: Total numbers of deliveries during the study period were 29570 and 254 emergency obstetrical hysterectomies were performed. Frequency being 0.86%, only 12% of pregnant women were booked. Commonest indications of EOH were ruptured uterus in 90 women (35.43%), uterine atony in 82 women (32.28%), placental abruption in 31 women (12.22%), couveliar uterus in 13 women (5.12%) and placenta previa in 9 women (3.54%).Commonest maternal complications were urinary tract infection in 16(6.30%) patients followed by disseminated intravascular coagulation (DIC) in 11 (4.33%) patients and 28(11.02%) patients died. Regarding parity 140(55.12%) were multiparous, 103(40.55%) patients were grand multiparous and 11(4.33%) patients were primiparous.

Conclusion: EOH, although a frequent life saving operation, was associated with significant maternal mortality, mostly due to the effects of massive hemorrhage. The most frequent indication for EOH was ruptured uterus followed by uterine atony and placenta previa.

Key words: EOH, Rupture uterus, maternal outcome, postpartum hemorrhage.

INTRODUCTION

Emergency obstetrical hysterectomy EOH is usually carried out for life threatening obstetric hemorrhage and may thus be regarded as "near miss events"[1]. It is one of the life saving procedures performed after vaginal delivery or caesarean birth or in the immediate postpartum period in cases of intractable hemorrhage where conservative measures fail to control the hemorrhage[2,3]. In no other gynecological or obstetric surgery is the surgeon in as much a dilemma as when deciding to resort to an emergency hysterectomy[4]. On one hand it is the last resort to save a mother's life, and on the other hand the mother's reproductive capability is sacrificed[5,6]. Postpartum hemorrhage (PPH), according to WHO, causes 25% of maternal death.[7] Postpartum haemorrhage remains a cause of significant maternal mortality worldwide[8]. In Pakistan hemorrhage is the most common cause of maternal mortality[9,10]. It is defined as excessive bleeding (>500ml) from the genital tract following the delivery of baby[11]. The four main causes of PPH which may require EOH are related to "4Ts" that is tone (uterine atony), tissue (retained placenta including morbidly adherent placenta), trauma (cervical, vaginal and uterine tears) and thrombosis (disorder of

coagulation e.g. placental abruption etc)[1]. In Pakistan rupture uterus has been reported to be the most common cause of PPH requiring EOH[12, 13]. Where as in developed countries uterine atony and morbidly adherent placenta seem to be the more common indication[14, 15].

The purpose of this study was to determine the frequency, indications, associated risk factors and postoperative complications associated with obstetrical hysterectomy in a tertiary care hospital Swat, Pakistan.

PATIENTS AND METHODS

This descriptive study was conducted in gynecology and obstetric unit of Saidu Teaching Hospital, Swat from January 2006 to December 2011. All EOH done for primary and secondary PPH were included in the study. Hysterectomies done for early pregnancy complication like perforated uterus due to induced abortion were excluded. During the study period total 29570 patients were delivered. Out of these 254 patients underwent EOH.

All hysterectomies were performed after 28 week of gestation. The data of these patients were analyzed for age, parity, social status, booking status, indication for hysterectomy, operative notes, maternal outcome, complications and post-operative status. The case were analyzed for maternal mortality and death. Data was analyzed in SPSS version 15 and frequencies were calculated.

RESULTS

During the study period, there were 29570 deliveries. Amongst these 254 had emergency obstetrical hysterectomies giving rise to a frequency of 0.86% cases or 8.6 / 1000. Only 12% of the patients were booked.

Majority of the patients 128(50.39%) were in between age group of 31 to 40 years, While 81 (31.90%) were more than 40 years of age. 37 (14.59%) patients were in age group of 21 to 30 and 8(3.15%) patients were less than 20 years (Table-1)

Regarding parity 140 (55.12%) patients were multiparous, 103 (40.55%) patients were grand multiparous and 11 (4.33%) patients were primiparous. 151 (59.45%) patients belong to poor class, 91 (35.83%) belongs to middle class while 12 (4.72%) belongs to upper class (Table-1).

Commonest indication of EOH was PPH due to ruptured uterus in 90(35.43%) patients, uterine atony in 82(32.28%) patients, placenta abruption in 31 (12.22%) of cases, couveliar uterus in 13(5.12%) , placenta previa in 9(3.54%) of patients and placenta accreta, obstructed labor, chorioamnionitis and handled in 4(1.57%) patients each.. (Table-2) Sub total abdominal hysterectomy was done in 201 (79.13%) cases.

Most common maternal complications were urinary tract infection (UTI) in 16 (6.30%) patients followed by disseminated intravascular coagulation (DIC) in 11 (4.33%) patients, pyrexia of more than 100 F patients and wound infection in 9 (3.54%) patients, injury to urinary bladder in 3 (1.2%) patients and 4 (1.60%) had repeat laparotomy (Table-3)

DISCUSSION

The frequency of EOH in our study (0.86%) is slightly higher compared to that reported by other study from Bahawalpur, Pakistan (0.4%) and Karachi, Pakistan (0.68%)[13, 16]. But is much lower compared to studies form Nawab Shah, Pakistan and Peshawar, Pakistan (1.2%, 2.9%)[17,18]. However, it is very high if we compare it with that of developed countries (0.04%, 0.02 %)[19,20]. Similarly, our very high case fatality rate of 12% is comparable to 17% and 19% reported from other studies from Pakistan[13, 18]. But is again very high compared to the developed nations which reported no maternal mortality in their studies[8,20]. This could be due to fact that our hospital is tertiary referral center, where most of cases are dealt by traditional

birth attendants and delayed referral results in a moribund condition of the patients[17].

In our study majority patients were from poor class, 151 (59.45%) patients. 88% were un booked , all patients were received and operated in emergency that is why our incidence is high, which is different from developed countries. The most common indication for EOH in our study was ruptured uterus. This has also been reported by other studies[12, 13, 21]. The main indication in our study was uterine rupture, uterine atony and placental disorders, this is quite similar to the study done by Rukhsana Shaheen[22]. The majority of uterine ruptures in our cases were caused by injudicious use of syntocinon, which serves to highlight the fact that these woman were delivered by untrained birth attendants. The second most common cause for hemorrhage leading to hysterectomy was uterine atony. The main risk factors were pre-eclampsia, twin pregnancy, obstructed labor and having delivery with untrained care providers. Most of these risk factors have been reported to be significantly associated with atonic PPH[23].

Subtotal abdominal hysterectomy (STAH) was done much more frequently 79.13% compared to total hysterectomy 20.87%. Several studies have suggested that STAH may be superior because of lesser degree of hemorrhage and speed of operation[23,24]. In most studies, it was most probably the surgeon's own decision about which kind of hysterectomy to perform depending upon the clinical situation and their own surgical experience[25].

CONCLUSION

Emergency obstetrical hysterectomy (EOH) has high frequency in our study. Most common indication was rupture uterus, PPH due to atony uterus and placental causes. After Death, UTI and DIC were the most common complications seen.

RECOMMENDATIONS

Improving antenatal booking, nutritional, educational status and training of traditional birth attendants (TBAs) provision of health care during pregnancy and delivery can reduce its incidence and associated morbidity and mortality.

Table-1: Socio demographic data

Indication		No. of Patients	Percentage
Age :	up to 20 years	8	3.14%
	21-30 years	37	14.59%
	31-40 years	128	50.39%
	>40 years	81	31.90 %
Parity :	Primiparous	11	4.33 %
	Multiparous	103	40.55%
	Grand multiparous	140	55.12%
Socio-economic condition: Poor class		151	59.45%
Middle class		91	35.83%
Upper class		12	4.72%

Table-2: Indication of Emergency Obstetric Hysterectomy.

S.No	Indication/ Causes	No. of Patients	%
1	Rupture Uterus	90	35.43 %
2	Uterine atony	82	32.28 %
3	Placenta abruption	31	12.21 %
	Couvlaire uterus	13	5.12%
5	Miscellaneous others small causes	12	4.72%
6	Placenta Previa	9	3.54%
7	Morbidly adherent placenta (MAP)	5	2.0%
8	Obstructed Labour	4	1.6%
9	Handled un train person	4	1.6%
10	Chorioamnionitis	4	1.6%

Table - 3 Maternal Complications.

S.No	Complications	No. of Patients	%
1	Expired	28	11.02
2	Urinary tract infection UTI	16	6.30
3	Disseminated intravascular coagulation DIC	11	4.33
4	Pyrexia	9	3.54
5 6	Injury to Urinary Bladder Repeat laparotomy	5 4	2.00 1.60
7	Wound Infection	4	1.60
8	Broad ligament hematoma	3	1.20
9	Shifted to Intensive care unit ICU	2	0.80
10 11	Injury to Gut Pulmonary oedema	2 1	0.80 0.40
12	Acute renal failure ARF	1	0.40
13	Deep Vein thrombosis DVT	1	0.40

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