

Emergency Hysterectomy in Obstetrics

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OBJECTIVE - To review cases of emergency hysterectomy done for obstetric complications. **METHOD** - A retrospective study of 41 patients who underwent emergency hysterectomy from 1st June 1997 to 31st May 2002 was undertaken. Maternal characteristics, indications and maternal morbidity and mortality were analysed. **RESULTS** - The incidence was 3.25 per 1000 deliveries (0.32%). The leading cause for hysterectomy was rupture of the uterus (36.58%), followed by atonic PPH (31.71%) and morbidly adherent placenta (14.63%). More than half of the hysterectomies done for atonic PPH had PGE₂ and oxytocin administered during labour. Two thirds of the hysterectomies done for morbidly adherent placenta were associated with cesarean sections. **CONCLUSION** - Emergency hysterectomy in obstetrics is a life saving procedure. Prevention of complications that give rise to emergency should decrease maternal morbidity and mortality.

Key words: emergency hysterectomy, postpartum hysterectomy, obstetric hysterectomy

Introduction

Emergency hysterectomy in obstetric practice is generally performed for life-threatening situations. There are several indications for this. The common ones are uterine atony, uterine rupture, morbidly adherent placenta and uterine sepsis. PPH is one of the most common and most deadly of all hemorrhagic threats to the parturient. Whether hysterectomy is indicated in some of these cases is an extremely difficult decision to make.

Clinical experience and skill are important in making an early decision to operate before the patients condition deteriorates. This minimises morbidity and mortality. Plauche¹ has emphasized that morbidity is often associated with the conditions leading to the hysterectomy and not necessarily with the procedure itself.

Material and Methods

A retrospective study of 41 emergency hysterectomies performed from 1st June 1997 to 31st May 2002 was done. Maternal characteristics, indications for hysterectomy, and causes of maternal morbidity and mortality have been studied. Hysterectomy for any indication during pregnancy, labor and puerperium has been included.

Results

Incidence: During the study period there were 12,621 deliveries, 2,840 cesarean sections and 41 emergency

hysterectomies. The incidence works out to 3.25 per 1000 deliveries (0.32%) and 1.44 per 1000 cesarean sections (0.14%).

Maternal Characteristics

Age and parity: Table I shows that 87.81% of cases were between 21-35 years of age. There was one woman of 18 years of age. She had eclamptic fits and was on magnesium sulphate regimen. She required hysterectomy for atonic PPH. 14.63% of the patients were grandmultiparas.

Table - I: Age and Parity of Women

Age (years)	Parity					Total	Percent
	1	2	3	4	5		
18-20	2	-	-	-	-	2	4.87
21-25	1	3	3	3	1	11	26.83
26-30	1	3	6	2	2	14	34.15
31-35	-	2	5	3	1	11	26.83
36-40	-	-	-	1	2	3	7.32
Total						41	100

Antenatal booking: Out of 41 women only 11 were booked. All the patients with ruptured uteri were unbooked obstetric emergencies.

Indications

Table II shows that about two-thirds of the emergency hysterectomies were done for ruptured uterus and atonic PPH. 66.67% of cases of ruptured uterus presented with obstructed labour. One case of traumatic rupture occurred in a woman undergoing IInd trimester MTP with extra

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amniotic ethacrydine lactate instillation followed by methyl PGE α injection. Seven (53.85%) cases of atonic PPH had PGE α gel instilled for cervical ripening followed by oxytocin drip for augmentation of labor (Table III).

Table - II: Indications

Indications	No.	Percent
Ruptured uterus	15	36.58
Atonic PPH	13	31.71
Morbidly adherent placenta	6	14.63
Septic abortion	3	7.32
Perforation during MHP	2	4.88
Paerperal sepsis	2	4.88
Total	41	100

Table - III: Causes of Rupture of the Uterus

Causes	No.	Percent
Spontaneous	12	80
Grandmultiparity	2	13.33
Obstructed Labour	10	66.67
CPD	5	
Breech with head entrapment	1	
Hydrocephalus	2	
Neglected Shoulder	2	
Traumatic perforation during MHP	2	13.33
Unknown	2	3.33
Total	15	100

Of the six cases of morbidly adherent placenta, four (66.67%) were associated with previous cesarean section and three (50%) were associated with placenta previa (Table IV). There were two cases (4.88%) of perforation of uterus with profuse hemorrhage during MHP. One case had a large perforation at cornual end and other had a perforation at the level of internal os leading to broad ligament hematoma (Table II).

Table - IV: Factors associated with Atonic PPH

Factors	No.	Percent
PGE α gel with oxytocin use	7	53.85
Severe anemia	1	7.69
Placenta previa (Type IV)	1	7.69
Prolonged labor	3	23.08
Abruptio placenta	1	7.69
Total	13	100

Total hysterectomy could be performed in 34 cases, while in seven cases sub-total hysterectomy was done. Internal iliac artery ligation was tried in five cases but it failed to control the hemorrhage.

Morbidity and mortality of emergency hysterectomy

Table V shows that 39.02% of cases suffered from febrile morbidity. All the cases of bladder injury were detected during surgery and repaired at the same time. One case of urethro-vaginal fistula was detected pre-operatively which healed spontaneously by postoperative catheterization.

Table - V: Factors Associated with Morbidly Adherent Placenta

Factors	No.	Percent
Placenta previa with previous LSCS	2	33.33
Previous LSCS with post abortion hemorrhage	2	33.33
Placenta previa with previous h/o retained placenta	1	16.67
Grand multiparity	1	16.67
Total	6	100

Table - VI: Causes of Maternal Morbidity and Mortality

Causes	No.	Percent
Febrile Morbidity	16	39.02
UTI	6	
Pneumonitis	5	
Pelvic cellulitis	3	
Septicemia	2	
Wound Infection	10	24.39
Burst abdomen	2	4.88
Urologic Injuries	4	9.76
Bladder injury	3	
Urethro-vaginal Fistula	1	
Thromboembolic event	3	7.32
Paralytic ileus	3	7.32
Maternal mortality	5	12.20
Endotoxic shock	2	
Hemorrhagic shock	1	
Pulmonary embolism	2	

There were five (12.44%) maternal deaths. Two cases of endotoxic shock reported in moribund state from far-flung remote areas. One woman went into irreversible hemorrhagic shock following atonic PPH. Her pre-operative hemoglobin was 3.7 gm %. Pulmonary embolism occurred in two women with ruptured uterus.

The mean number of days of hospital stay was 14. Two women stayed for 40 days, one for management of thrombophlebitis and the other for burst abdomen.

Discussion

Hysterectomy as a method of treatment is a radical and undesirable procedure, performed in an emergency as a last resort. Incidence of emergency hysterectomy in the present study was 0.32% which is same as that reported by Mantri¹ et al but lower than the 0.38% reported by Sinha and Mishra².

The commonest indication in our series was ruptured uterus which was seen in 36.58%. All these patients were un-booked obstetric emergency cases resulting from neglected obstetric care and poor transport facilities. This incidence was similar to 35.3% by Yamamoto et al³ but much lower than 67.2% reported by Mantri et al¹ and 69.92% reported by Sinha and Mishra².

Atonic PPH was the indication in 31.71% which was markedly higher than 9.83% observed by Sinha and Mishra² and 23.5% reported by Yamamoto et al³. Abnormal adherent placentation is emerging as a common condition leading to emergency hysterectomy. This was the case in 14.63% of patients in the present study. This incidence was higher than that found by Sinha and Mishra² but markedly lower than 64% reported by Zelop et al⁵ and Stanco⁶ et al.

Maternal mortality occurred in 12.2% of cases which was lower than 14% reported by Mantri et al¹ and 12.8% reported by Gupta and Ganesh⁷ but higher than

the 6.01% reported by Sinha and Mishra².

The factors leading to emergency hysterectomy are mainly responsible for much of the morbidity reported to be associated with the procedure. By good perinatal care and careful monitoring during labor, rupture of the uterus can be prevented. Use of oxytocics and prostaglandins even in best of hands and circumstances should be judicious. Patients of previous cesarean section with placenta previa should be operated by experienced obstetricians keeping plenty of blood ready considering the possibility of morbidly adherent placenta. Conservative aggressive measures to control atonic PPH remain the main stay of therapy but emergency hysterectomy plays a life saving role with which every obstetrician must be familiar.

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