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Original Article

Peripartum hysterectomy – A five year study

Marwaha Parveen [1], Kaur Manjeet [2], Gupta Anju [3]

[1] Professor [2] Associate Professor [3] Senior Resident

Department of Obstetrics and Gynecology, Government Medical College, Patiala

Abstract

Objectives : To study the indications and maternal outcome of emergency cesarean hysterectomy. Methods: A retrospective study of 30 emergency obstetric hysterectomies performed over a period of 5 years from January 1999 to December 2003 was carried. *Results :* There were 30 cesarean hysterectomies amongst the 9526 deliveries over the 5 year study period giving an incidence of 0.31%. Seventy percent (21/30) were in the age group of 26 to 35 years, 56.6% (17/30) belonged to poor socioeconomic status and 40% (12/30) were booked cases who had pregnancy complications like placenta previa and uterine fibroids. Sixty percent (18/30) had reported with rupture uterus which was the commonest indication for peripartum hysterectomy. There was 10% maternal mortality and 100% perinatal mortality in rupture uterus cases. *Conclusions :* Peripartum hysterectomy is potentially a life saving procedure and often puts the obstetrician in a dilemma at the time of decision making.

Key words: peripartum hysterectomy, emergency cesarean hysterectomy, maternal morbidity

Introduction

Peripartum hysterectomy has a definite role in developing countries. Inspite of advancements in obstetrics, dai handling of obstructed labor and its complications are quite prevalent in rural India. The present study was carried out to find out the risk factors leading to peripartum hysterectomy.

Methods

A retrospective analysis of 30 cases of emergency peripartum hysterectomy was done over a period of 5 years from January 1999 to December 2003. All the risk factors, indications for hysterectomy, fetal and maternal outcome, and operative and postoperative complications were analyzed. Most of these cases were referred from periphery to our tertiary institute.

Observations

There were 30 cases of cesarean hysterectomy amongst 9526 deliveries over the 5 years giving an incidence of 0.31%. The youngest woman to undergo hysterectomy was 22 years old and the oldest was 40 years old. Twenty one (70%) of the women were in the age group of 26 to 35 years, three (10%) were primigravidas, 15 (50%) were primiparas and 12 (36%) were multiparas. Seventeen women (56.6%) belonged to poor socioeconomic status. Twelve (40%) were booked cases who paid regular visit to the hospital and had pregnancy complications like placenta previa and fibroid uterus. Eighteen (16%) were unbooked and all

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Correspondence :
Dr. Marwah Parveen
42, Officers Colony,
Patiala,
Tel. 0175 2213735 Email : dranju2003@rediffmail.com

of them reported were referred from periphery in unstable condition with rupture uterus and absent fetal heart. All the 18 had preoperative hemorrhagic shock and three of them developed renal failure. All the booked patients were clinically stable.

Indications

Rupture uterus was the most common indication for cesarean hysterectomy seen in 18 (60%) women, all of whom were referred from peripheral rural areas within a radius of 15 to 18 km. Out of these 18 cases, seven had previous one cesarean section and were handled by dais with oxytocin abuse, five were in obstructed labor, and six had prolonged and intravenous oxytocin administration by the dai. There were three cases of bladder rupture among the 18 with rupture uterus and all the three had a scarred uterus. In cases with previous lower segment cesarean section rupture had occurred along the line of previous incision and had extended laterally into the broad ligament. Of the remaining 11 cases of uterine rupture, five had vertical tear on the left side extending upto the vaginal portion of the cervix, and in six cases left side of the uterus was involved with broad ligament hematomas and massive hemoperitoneum with the uterus lying on one side and the fetus lying high up in the abdominal cavity often below the diaphragm.

Morbidly adherent placenta was the second most common indication in six (20%) women. Two of them had previous one cesarean section, one had placenta previa with previous one lower segment cesarean section, two had placenta accreta, and one had history of manual removal of placenta in previous pregnancy.

Atonic postpartum hemorrhage was the third indication in three (10%) women with placenta previa. All of them were booked cases, and had major degree type IV placenta previa.

There was one (3.3%) case of traumatic postpartum hemorrhage due to extension of previous uterine incision which ended in cesarean hysterectomy. There were two (6.6%) cases of fibroid uterus complicating pregnancy that were taken up for elective cesarean section with concurrent hysterectomy.

There were three maternal deaths, one because of disseminated intravascular coagulation and two because of irreversible hemorrhagic shock and renal failure, in cases who had rupture bladder. There was 60% fetal mortality all of it in the 18 patients of rupture uterus with fetus death. Thus in the rupture uterus group there was 100% fetal mortality. In 29 cases, subtotal hysterectomy was done and in one case total hysterectomy was performed. In two cases of cesarean section uterine artery ligation followed by internal iliac artery ligation was performed to control hemorrhage but ultimately hysterectomy had to be done. In three cases bladder repair was done. Number of blood transfusions required ranged form 3 to 11 depending upon the blood loss.

Postoperative Complication: Nineteen patients had febrile morbidity, four had paralytic ileus, six had wound infection, two had endotoxic shock, two had renal failure, one had deep vein thrombosis and 13 had urinary infection. Such a high maternal morbidity is self explanatory.

Table 1. Reported incidences of obstetric hysterectomy.

Author	Incidence
Mesleh et al (1998) [1]	0.03%
Bakshi and Meyer (2002) [2]	0.27%
Kastner et al (2002) [3]	0.14%
Mukherjee et al (2002) [4]	0.15%
Sheiner et al (2003) [5]	0.048%
Baskett (2003) [6]	0.53%
Parmeshwari Devi et al (2004)[7]	0.07%
Sahu et al (2004) [8]	0.20%
Kwee et al (2005)[9]	0.03%
Kant and Wadhwani (2005) [10]	0.26%
Present study	0.31%

Discussion

Peripartum hysterectomy is a major operation almost always an emergency one with significant blood loss and high maternal and fetal morbidity and mortality. Our incidence of 0.31% is comparable to other studies as shown Table 1. Ours is a tertiary institute for referral and most of the cases are referred late. The rupture uterus is the most common indication in our study. The comparison of indications in various studies is shown in Table 2.

Table 2. Reported indications.

	Gupta and Ganesh (1994) [11]	Mukherjee et al [4] (2002)	Kastner et al [3] (2002)	Baskett (2003) [6]	Sahu et al [8] (2004)	Praneshwari Devi et al [7] (2004)	Kwee et al [9] (2005)	Kant and Wadhwani (2005) [10]	Present study (2005)
Rupture uterus	—	38.3%	—	—	38.8%	23%	—	36.58%	60%
Morbidly adherent placenta	—	8.4%	48.9%	50%	13.88%	26.9%	50%	12.19%	20%
Atonic PPH	—	10.3%	29.8%	32.8%	—	19.2%	27%	41.46%	10%
Traumatic PPH	39.4%	6.5%	4.3%	—	—	7.6%	—	—	3.3%
Pregnancy with fibroid uterus	—	0.9%	—	—	—	—	—	—	6.6%

The second most common indication is morbidly adherent placenta followed by atonic PPH, traumatic PPH and term pregnancy with fibroid uterus.

Rupture uterus is a serious obstetric emergency with high maternal and perinatal mortality. Though a common obstetric problem in developing country, it is preventable. Occurrence of uterine rupture is significantly associated with grand multiparity, scarred uterus, lack of antenatal care, unsupervised labor at home, injudicious use of oxytocin, and low socioeconomic status of the women. These factors are largely preventable. Postoperative complications like febrile morbidity, paralytic ileus, wound infection, endotoxic shock renal failure and deep vein thrombosis are common because of prolonged labor intrauterine manipulations, and dormant sepsis[4,5,7,8,10,12].

No maternal deaths were reported by Basket[6], and Mesleh et al[1] while 10% maternal deaths were reported by others [5,9,10].

Emergency obstetric hysterectomy is no doubt a life saving procedure for managing life threatening obstetric hemorrhage and uterine rupture. This is one situation when the surgeon is in a dilemma, in deciding about emergency hysterectomy, as a last resort to save the life of the mother, the fetus being already lost and the mother still young, often a primigravida or of low parity with no living child. This operation should be made rarer by good antenatal care, of active management of labor, early recognition of complications and timely performance of cesarean section when indicated. But every obstetrician should be conversant with obstetric hysterectomy.

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