

Emergency Peripartum Hysterectomy: Experience at Apex Hospital of Kashmir Valley

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Abstract

The aim of this study was to estimate incidence, indications and complications of peripartum hysterectomy in Apex Hospital of the Kashmir valley. We analyzed 100 cases of emergency cesarean hysterectomies performed in our hospital from January 2001 to December 2002. The incidence of emergency hysterectomy was 2.6 per thousand deliveries. Most common indication for emergency hysterectomy was uterine rupture (30%), followed by placenta previa (25%), uterine atony (21%) and placenta increta/accrta/percreta (8%). Majority of uterine rupture cases were late referrals from rural areas. The commonest postoperative complication was fever (27%), followed by lower respiratory tract infection (10%), wound infection (8%), and bladder injury (8%). Maternal mortality following emergency hysterectomy was 3%, and the cause of death was related to complications like shock, septicemia and disseminated intravascular coagulation (DIC).

INTRODUCTION

Emergency hysterectomy is carried out as life saving procedure. Even today, 8-10% of maternal mortality, in developing countries, directly occurs due to massive obstetrical hemorrhage¹. Emergency peripartum hysterectomy that occurs after vaginal delivery, or at the time of cesarean births, is usually reserved for situations where conservative measures do not control hemorrhage. Most common indication for emergency peripartum hysterectomy has been uterine atony and uterine rupture^{2,3}. Recently the most common reported indication is placenta accreta, and is most likely related to increase in number of cesarean deliveries observed over the past two decades^{4,5,6,7,8}. The purpose of our study was to estimate incidence, indications, and postoperative complications associated with emergency hysterectomy in this part of the world.

METHODS

The present prospective study was carried out in Lalla-Ded Hospital, which is one of the main hospitals associated to Government Medical College Srinagar, Kashmir and is the only referral maternity care hospital at present catering the whole Kashmir valley. A random sample of first 100 women who underwent caesarean hysterectomy for various indications between January 2001 to December 2002 was studied. Maternal characteristics like age, parity, residence, and any previous cesarean delivery were recorded. The

indication for surgery, type of hysterectomy, postoperative complications, any need for blood transfusion, and pregnancy outcome were obtained. Data thus collected was subjected to appropriate statistical analysis.

RESULTS

From January 2001 to December 2002, 45460 normal vaginal deliveries, 10139 cesarean deliveries, and 146 emergency cesarean hysterectomies were performed. We analyzed 100 randomly selected samples out of 146 cases of emergency cesarean hysterectomy. The incidence of emergency cesarean hysterectomy was 2.6 per thousand deliveries. A total of 36% patients were from urban areas while 64% belonged to rural areas (Table 1).

Figure 1

Table 1: Incidence of cesarean hysterectomies

Total no. of vaginal deliveries	45460
Total no. of cesarean deliveries	10139
Total no. of cesarean hysterectomies	146
Incidence of cesarean hysterectomies	2.62/1000
Urban	36%
Rural	64%

The proportion of patients requiring emergency hysterectomy increased from 5% in 20-24 years age group to 42% in 35-39 years, and then showed decline at or above 40 years (Table 2).

Of the patients who underwent emergency cesarean hysterectomy, 64 were of Para 3 (40%) and para 4 (24%); parity distribution showed a fall in the number of hysterectomies from 40% in Para 3 to 2% in Para 7 (table3). There were 3% primigravida who underwent cesarean emergency hysterectomy.

Figure 2

Table 2: Age distribution of patients requiring emergency hysterectomy (n=100)

Age(years)	No. of patients(%)
20-24	5
25-29	10
30-34	33
35-39	42
40-45	10

The most common indication for emergency cesarean hysterectomy was rupture of the uterus (30%), all the cases being rural referrals, followed by placenta previa (25%), atonic uterus (21%), accidental hemorrhage (12%), and placenta increta/acreta (8%)

Figure 3

Table 3: Parity distribution of patients who underwent emergency Cesarean hysterectomy (n=100)

Parity	No. of patients (%)
1	3
2	8
3	40
4	24
5	19
6	4
7	2

In 97% of cases subtotal hysterectomy was carried out, whereas 3% patients required total hysterectomy. Average length of hospital stay in those patients who underwent

cesarean hysterectomy was 10-15 days.

Figure 4

Table 4: Indications for emergency hysterectomy (n=100)

Indication	No. of patients (%)
Ruptured uterus	30
Placenta previa	25
Uterine atony	21
Accidental hemorrhage	12
Placenta accrete/increta/Percreta	8
Grossly infected uterus	3
Fibroid uterus	1

Fever was the most common complication (27%), followed by urinary tract infection (12%), bladder injury (8%), wound infection (8%), lower respiratory tract infection(10%), and life threatening septicemia (1%). Perinatal mortality was 43%, and maternal mortality was 3% in present study.

DISCUSSION

Cesarean hysterectomy has undergone tremendous change, both in terms of the indications and frequency of the procedure. Obstetric cesarean hysterectomy is mostly done for indications deemed to be serious and life threatening to the patient, and not amenable to conservative management.

Present study describes maternal mortality, morbidity, etiology, and fetal outcome of 100 patients who underwent cesarean hysterectomy in our hospital in a period of about 2 years.

There were a total of 45460 vaginal deliveries, 10139 cesarean deliveries, and 146 emergency cesarean hysterectomies. The incidence of cesarean hysterectomy was 2.62 per thousand deliveries.

The rate is higher than that in the earlier studies conducted by Chestnut et al₁ where 44 hysterectomies in 36561 deliveries were reported between 1963 and 1983 for a rate of 1.2 per thousand. Clark et al₂ identified 70 hysterectomies in 68653 deliveries between 1978 and 1982 for a rate of 1.02 per thousand; where as Zelop et al₄ described 117 hysterectomies in 75650 deliveries between 1983 and 1991 at a rate of 1.55 per thousand. However these are published rates of institutions within the United States. Gupta et al₉ described 169 emergency hysterectomies out of 100,000 deliveries between January 1976 to December 1980, giving a rate of 1.69 per thousand. Our study revealed an incidence

rate of 2.6 per thousand deliveries which is higher than that in studies mentioned above. This increase in incidence can be attributed to more frequent referrals from rural areas in our setting. Patients who underwent emergency cesarean hysterectomy belonged more often to a rural area (64%) than to an urban location (36%).

Up to 60% of patients undergoing cesarean hysterectomy were in age group of 30 to 36 years, 42% of 35 to 39 years, and 10% of 40 years of age or greater. Similar trends were observed by Gupta in 1992⁹, where the number of patients requiring hysterectomy at 40 years of age or above, fell from 13.7% to 5.7%. Maximum number of patients belonged to Para 3 (40%) and Para 4 (24%), as these patients are at more risk of complications associated with pregnancy. Barclay¹⁰ in 1975 showed that 82.6% of patients undergoing cesarean hysterectomy were Para 2 or greater; our results run in conformity.

The most common cause of emergency peripartum hysterectomy was uterine rupture (30%), followed by placenta previa (25%) and uterine atony (21%). Majority of ruptured uterus cases were late referrals from rural areas and rural hospitals. Gupta et al⁹ showed an incidence of 42% of uterine rupture in patients undergoing cesarean hysterectomy, slightly higher than our study. Standee and Ruston¹¹ in 1983 reported an incidence of 17.14% uterine rupture, 14.29% uterine atony, 48.7% placenta previa in patients undergoing cesarean hysterectomy. Chestnut et al² found that the major indication for cesarean hysterectomy was uterine rupture followed by uterine atony and placenta accreta. Clark et al³ reported uterine atony (43%) to be the most common cause of emergency peripartum hysterectomy. However, Stanco et al⁴ found later that most common cause of emergency peripartum hysterectomy was placenta accrete (50%), followed by uterine atony (21%). Zelop et al⁵ also found placenta accrete (64%) and uterine atony as most common indications for emergency peripartum hysterectomy.

Conclusion: Present study highlights various areas for overall improvement in health care which will lead to decline in emergency hysterectomy. These include refreshing courses for multipurpose workers in identifying high risk pregnancies and their timely referral, upgrading of Primary Health Centers (PHCs) and ambulance facilities, posting of qualified and specialist surgeons, proper

mechanism of referral to a higher hospital, round the clock obstetric services at the PHCs, and creation of first referral units (FRUS) These first as well as second line referrals need to be upgraded for providing basic and comprehensive obstetric care as scheduled in India Reproductive and Child Health Programme II (RCH-II).

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