ORIGINAL RESEARCH PAPER
VOLUME-6 | ISSUE-7 | JULY-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

EMERGENCY OBSTETRIC HYSTERECTOMY- A REVIEW OF 52 CASES OVER A PERIOD OF 3 YEARS IN MEDICAL COLLEGE AND TERTIARY HEALTH CENTER.

Gynaecology

Chaudhary Suman Assistant Professor, Department of Obstetrics & Gynecology - Corresponding Author
Agarwal Sudesh Senior Professor & Head, Department of Obstetrics & Gynecology
Singh Ajay Pal Senior Resident, Department of Medicine
Chaudhary Deepa Assistant Professor, Department of Obstetrics & Gynecology

ABSTRACT

Objectives: - To study and analyze obstetric hysterectomies performed over 3 years study period.
Method: Medical records of 52 obstetrics hysterectomies performed during the study period were analyzed. Maternal characteristics, indications and postoperative complication were studied.
Results: 52 obstetric hysterectomies were performed during the study period. There were 35,537 confinements, thus incidence was 0.15%, i.e. one in 683 deliveries. Incidence following vaginal deliveries was 0.08% and following cesarean section was 0.44%. 73.08% cases were unbooked, about 82.69% cases had institutional delivery. Incidence was highest in age group 26-35 years (61.54% cases) and in grand multipara (34.62%). Post partum hemorrhage was the most common indication accounting for 55.76% cases; rupture uterus was second most common (23.08%). There were 15 maternal deaths. Fever, wound infection and paralytic ileus were the most common postoperative complications.
Conclusion : Effective family planning, universal antenatal care, institutional deliveries with reduction in number of c- section will reduce incidence of obstetrics hysterectomy. But when needed early involvement of expert and experienced team of medical professionals at performing this operation is necessary.

KEYWORDS:

Emergency obstetric hysterectomy, postpartum hemorrhage, rupture uterus, morbidly adherent placenta.

Introduction

Potentially life-threatening complications occurs in about 15% of all pregnancies which call for skilled care and some will require a major obstetrical intervention. These complications are more common in high-risk pregnancy but may arise even in low risk one. They cannot be always predicted & prevented but can be managed effectively only with efficient, experienced team of medical professionals.

Emergency obstetric hysterectomy is an example of such major intervention, it is a life saving procedure but resorting to it may be difficult decision at times as women's reproductive capacity is sacrificed.

A review of 52 cases of obstetric hysterectomy performed over a period of 3 years in tertiary center cum teaching hospital of North India is presented.

Methods

This retrospective study was conducted in Department of Obstetrics and Gynecology, SP Medical College Bikaner where records of all pregnant women admitted in the hospital were scrutinized. 52 cases of obstetrics hysterectomy were performed during the study period of 3 years from Nov 2013 to Oct 2016. Medical records of these cases were evaluated retrospectively. The data obtained was analyzed for demographic features, maternal characteristics and risk factors, indications and postoperative complications. Type of operation performed, any secondary surgery needed, amount of blood & blood products transfused, hospitalization period were also noted.

Results

There were 35,527 confinements and 52 cases of emergency obstetric hysterectomy were performed during the study period giving the incidence of 0.15% i.e. in 683 deliveries. Out of 52 obstetric hysterectomies, 22 were after 26,314 vaginal deliveries, an incidence of 0.08%, 27 were performed after 6,229cesareansection,an incidence of 0.44%and 3were in 2984 abortions an incidence of 0.10%. Thus incidence of obstetric hysterectomy following C-sections was more than 5 times of incidence after vaginal deliveries.

Maternal Characteristics (Table 1)
Age- 61.54% (32) women were in age group of 26-35 yrs. The youngest was 20 years old and the oldest was 52 years old.

Obstetrics history- maximum i.e. 34.62% (18) women were grand multipara. 26.92% (14) women were third gravida out of which 10 women were previous C-section and there were 7 primigravida too. Demographic data -Maximum 61.54% (31) women were from rural area. 73.08% i.e. 38 women were unbooked but 82.69% (43) women had institutional delivery. Tetanus prophylaxis was 100%. These data shows the impact of Janani Suraksha Yojna.

Indications (Table 2) Post partum hemorrhage was the most common indication (55.76%). In 44.23% (23) women had atonic PPH refractory to medical management, out of which 12 were delivered vaginally and 11 after C-section. In 11.54% (6) women PPH was traumatic due to cervical tears and large broad ligament hematoma necessitating surgical intervention. Rupture uterus accounts for 23.08% (12) cases, 6 were performed after for scar dehiscence and 6 following obstructed labor.

7 cases of morbidly adherent placenta required hysterectomy out of which 4 women were previous C-section with placenta previa. Two were multigravida and one was placenta previa with succenturiate lobe.

2 cases were following voluntary termination of pregnancy, one for perforation uterus and other for septic abortion while one case each had puerperal sepsis with secondary hemorrhage and persistant trophoblastic neoplasia.

Postoperative complications (Table 3)

Most common was febrile morbidity affecting 46.15% (24)cases, second most common was wound infection (23.08%) and paralytic ileus (23.08%).

There were 15 maternal deaths [28.84%]. These were due to DIC in four, septicemia in one and subcutaneous emphysema in one. Hemorrhagic shock accounts for a 9 maternal deaths out of which 8 were referred from peripheral health centers and were in irreversible shock at admission obstetric hysterectomy was performed as last resort. 11 cases needed intensive care unit admission for critical care. There were 23 stillbirth and 26 live births.

Type of Operation

Subtotal hysterectomy was done in 88.46% (46) cases due to morbid condition of patients. In 11.65% (6) women total hysterectomy was performed, one was for perforation uterus and rest were due to traumatic PPH involving lower uterine segment and cervix.

Internal iliac artery ligation was done in 9.61% (5) women. B-lynch sutures were applied in one.

Two women needed repeat laparotomy, one had rectus sheath & muscle hematoma due to injury to left superficial epigastric vessel bundle and other had oozing from raw surface where intra abdominal packing was done.

Urologist expert opinion was needed in 8 women to evaluate and manage bladder and ureter injury and surgeon was called in one case due to intestinal involvement in women with persistant trophoblastic neoplasia.

Average hospital stay was 13.8 days.26 women needed ≥ 5 units of blood transfusions. 22 women required transfusion of fresh frozen plasma and 4 women were given platelet concentrate.

Discussion

Incidence of emergency hysterectomy in present study was 0.15%, both higher & lower incidences have been reported in various studies as shown in table 5. The incidence of obstetric hysterectomy varies from center to center depending on facilities at peripheral medical centers.

In the present study the incidence of obstetric hysterectomy after vaginal delivery was 0.08% and after cesarean section was 0.44%, i.e. more than five times. Similar high incidences following C-section were also reported in studies by Sahasrabhojanee Mrinalini et al, Praneshwari devi et al. Stanco et al found that previous C-section increases the risk of obstetric hysterectomy by 15-20 times. Reduction in number of C-section will reduce the risk of complications in future pregnancy. PPH is the commonest indication for obstetric hysterectomy in our study (55.76%) and rupture uterus (23.08%) was the second most common. Similar were the indications in study by Sahasrabhojanee Mrinalini et al, Kant Anita et al. In study by Farah Lone et al also PPH was the most common indication. But in other studies rupture uterus was the most common indication as shown by Singh Richa et al (37.25%) Kumari Archana et al (75%). In the study by Praneshwari Devi et al morbid adherent placenta was the most common indication (26%) but in present study it was indication for only 13.46% (7) cases. Study by Praneshwari et al shows rupture uterus (23%) as second most common indication similar to our study. In study by Stanco et al indication for hysterectomy was primarily placenta accrete(49.6%).

The mortality rate in present study was 28.84%.It is higher than reported by Kant Anita et al (9.7%), Sahasrabhojanee Mrinalini et al (10%), Kumari Archana et al (5.35%). Parneshwari Devi et al reported no maternal death.

Most common post operative complications were febrile morbidity, wound infections and paralytic ileus. Similar to that reported by Kant Anita et al, Kumari Archana et al.

It is the condition of patient at time of surgery which determines the morbidity and mortality not the operation. The decision to perform this operations is difficult as one has to sacrifice women's obstetric career but it should not be delayed rather a prompt decision should be made to prevent any further complications.

Universal antenatal care, identification of high risk cases & their timely referral, institutional deliveries with judicious use of oxytocics and active supervision of labor reduces the incidence of PPH, rupture uterus and thus obstetric hysterectomy.

Effective medical management of PPH by prostaglandins, application of B-lynch sutures, resort to ligation of uterine and internal iliac artery will also decrease the incidence of obstetric hysterectomy. However, catastrophic obstetric complications can occur in low risk pregnant women and they cannot be always predicted & prevented but can be managed effectively only with efficient skilled & experienced team of medical professionals. Here expertise & experience at performing this operation will be life saving for the mothers.

Table – 1 Distribution of cases by Age & Parity (n=52)

Age in years	Number of cases	Percentage
20-25	14	26.92%
26-30	16	30.77%
31-35	16	30.77%
≥ 35	06	11.54%
Parity	Number of cases	Percentage
Primigravida	7	13.46%
Gravida 2	5	9.62%
Gravida 3	14	26.92%
Gravida 4	8	15.39%
≥ Grandmulti	18	34.62%

Table 2 Indications

Indications	Number of cases (n=52)	Percent
1. Atonic PPH	23	44.23%
● After vaginal delivery	12	
● After cesarean delivery	11	
2. Rupture uterus	12	23.08%
● Scar dehiscence	6	
● Obstructed labor	6	
3. Adherent placenta	7	13.46%
● Previous C-sec with placenta previa	4	
● Unscarred uterus	2	
● Previous C-section	1	
4. Traumatic PPH	6	11.54%
5. Puerperal sepsis & secondary hemorrhage	1	
6. Persistent trophoblastic neoplasia	1	
7. Perforation uterus after voluntary termination of pregnancy	1	
8. Septic abortion after voluntary termination of pregnancy	1	

Table 3 Post operative complications

	Number	Percentage
Febrile morbidity	24	46.15%
Wound infections	12	23.08%
Paralytic ileus	12	23.08%
Deranged coagulation	10	19.23%
Deranged renal function test	9	17.30%
Urinary system injury	7	13.46%
Deranged liver function test	5	9.62%
Thrombophlebitis /leg vein DVT	3	5.77%
Electrolyte imbalance	2	3.85%

Table 4 Risk Factors

Risk Factors	Number	Percentage
Anemia	22	42.31%
Grand multipara	18	34.61%
Ante partum hemorrhage	19	36.53%
Intra uterine death of fetus	10	19.23%
Previous C-section	19	36.53%
Vesicular mole	1	1.92%
Injudicious use of oxytocics	5	9.62%

Table 5

Author	Incidence
Sahasra bhojanee Mrinalini et al (2008)	0.35%
Kant Anita et al (2005)	0.26%
R.K. Praneshwari Devi et al (2004)	0.779%
Singh Richa et al (2005))	0.435%
Farah Lone et al (2010)	0.06%
Kumari Archana et al (2009)	0.73%
Stanco LM et al (1993)	0.13%
Present Study (2011)	0.15%

References :

1. Maternal mortality update 2002- A focus on emergency obstetric care UNFPA, New York, 2003.
2. Sahasrabhojanee Mrinalini, Jindal Manjusha, Kamat Anjali- Obstetric hysterectomy: A life saving emergency J Obstet Gynecol India Vol. 58, No. 2: March/April 2008- 138-141.
3. RK Praneshwari Devi, N Nabakishore Singh, Th. Darendra Singh- Emergency Obstetric Hysterectomy: A study of 26 cases over a period of 5 years. emergency J Obstet Gynecol India Vol. 54, No.4, July/August 2004- 343-345.

4. Stanco LM, Shrimmer DB, Paul RH et al. Emergency peripartum hysterectomy and associated risk factors. Am J Obstet Gynecol 1993: 168: 879-83.
5. Kant Anita, Wadhwani Kavita – Emergency obstetric hysterectomy emergency J Obstet Gynecol India Vol. 55, No. 2 : March/April 2005 : 132-134.
6. Farah Lone Abdul H. Sultan – Risk factors & management patterns for emergency obstetric hysterectomy over 2 decades. Int. J obst Gynacol April 2010 Vol 109.
7. Kumari Archana 1, Sahay Priti Bala A clinical review of emergency obstetric hysterectomy J Obstet Gynecol India Vol. 59, No. 5 : September/October 2009 : 427-431
8. Singh Richa, Nagrath Arun Emergency obstetric hysterectomy – a retrospective study of 51 cases over a period of 5 years J Obstet Gynecol India Vol. 55, No. 5 : September/October 2005 : 428-430