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RESEARCH ARTICLE
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EMERGENCY OBSTETRIC HYSTERECTOMY IN A RURAL MEDICAL COLLEGE OF EASTERN INDIA

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Abstract:

Background: Emergency obstetric hysterectomy is an unequivocal marker of severe maternal morbidity and, in many respects, the treatment of last resort for rupture uterus, severe postpartum hemorrhage and other such life threatening conditions. In no other gynaecological or obstetrical surgery is the surgeon in as much a dilemma as when deciding to resort to an emergency hysterectomy. 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. This study is conducted with an aim to determine the frequency, demographic characteristics, indications, and feto-maternal outcomes associated with emergency obstetric in a rural medical college.

Methods: We conducted a prospective, observational, study over a period of two years, from September 2019 till September 2021. A total of 56 cases of emergency obstetric hysterectomy (EOH) were studied in the Department of Obstetrics and Gynecology, PRM Medical College, Baripada.

Results: The incidence of EOH in our study was 12 following vaginal delivery and 44 following caesarean section. The overall incidence was 56 per 21,128 deliveries. Uterine rupture (37.5%) was the most common indication followed by atonic postpartum hemorrhage (25%) and placenta accrete spectrum (10.7%). The most frequent sequelae were febrile morbidity (25.7%) and disseminated intravascular coagulation (21.4%). Maternal mortality was 17.1% whereas perinatal mortality was 51.7%.

Conclusions: A balanced approach to EOH can prove to be lifesaving at times when conservative surgical modalities fail and interventional radiology is not immediately available. Our study

highlights the place of extirpative surgery in modern obstetrics in the face of rising rates of caesarean section and multiple pregnancies particularly in rural settings in developing countries.

Keywords: Emergency obstetric hysterectomy

INTRODUCTION

Emergency obstetric hysterectomy (EOH) is defined as extirpation of the uterus either at the time of caesarean section or following vaginal delivery, or within the puerperium period. It is usually performed in the face of unrelenting and life-threatening obstetric hemorrhage. A near miss event is defined as a woman who nearly died but survived a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy.[1,2] Emergency obstetric hysterectomy can be rightly classified as a near miss event. It is important to study such events since they provide an insight into the standard of care provided and help to reduce maternal morbidity and mortality. Conservative methods such as community-based use of oxytocin, misoprostol, carboprost, bimanual uterine compression, condom catheter balloon, and noninflatable anti-shock garments for the management of atonic PPH have all been advocated to effectively Advances in interventional radiology have also provided the option of uterine artery embolization[.3,4,5] The purpose of our study was to know the incidence, indications, risk factors and the maternal complications of the patients undergoing emergency obstetric hysterectomies at our rural medical college hospital which mainly caters to the rural and urban population.

METHODS:

This is a prospective, observational, study of women requiring emergency obstetric hysterectomy for some indication during pregnancy, labor and puerperium. We recorded the data for over a period of two years, from September 2019 to September 2021 in the Department of Obstetrics and Gynecology, PRM Medical College and Hospital, Odisha, India. EOH was defined as hysterectomy performed for hemorrhage unresponsive to other therapeutic interventions, such as shock following ruptured ectopic pregnancy, perforation after medical termination of pregnancy, vaginal delivery, cesarean section, sepsis or within the period of puerperium. Inclusion criteria included all women who were admitted to the hospital during the two-year study period in their pregnancy and underwent hysterectomy for some obstetric indication at the time of pregnancy, delivery or subsequently within the defined period of puerperium (42 days). During this period 21,128 deliveries were conducted and 56 patients underwent emergency hysterectomy. All women those who had undergone termination of pregnancy or had delivered outside the hospital and were referred for obstetric complications meriting a hysterectomy and fulfilling all the above conditions were also included in the study. Women undergoing hysterectomy for indications other than obstetric, or outside the stipulated time of 42 days post-delivery were excluded from the study. After collecting relevant data from patient's history, operation theatre records and case records, through scrutiny was done with regard to incidence, age, parity, antenatal high-risk factors, indications, hysterectomy type, and complications, along with the ultimate fetomaternal outcome. Institutional ethical committee approval was obtained for the study.

OBSERVATIONS:

Out of 21,128 deliveries, total of 56 cases of emergency hysterectomy were performed. The incidence of obstetric hysterectomy in our study was 0.001% (1 hysterectomy per 1000 deliveries) Out of total 56 cases of obstetric hysterectomies thirty-six cases were not booked (64.3%), mostly constituted rural population and twenty booked (35.7%) cases were almost equally distributed between rural and urban population.Most common risk factor found in this study was history of previous caesarean section (64.8%) followed by increasing maternal age (ie. age > 35 years) (18.9%) . Rupture uterus was the indication for EOH in 21 cases, mostly because of attempted vaginal delivery by the patient at home and secondly poor referral system. It was associated with previous single cesarean in 15 cases, previous double caesarean in 2 cases and with grand

multiparity, prolonged labor, sepsis and multifetal gestation in one case each. Uterine atonic postpartum hemorrhage was the cause in 14 cases. It was associated with obstructed labour in five cases, previous caesarean in three cases, with anemia in three cases, with a distended uterus as in multiple pregnancy or polyhydramnios in one cases each, and with placental cause in one case. Placenta acreta spectrum was the indication for EOH in 6 cases and was associated with one or more cesarean sections previously in 3 cases, previous curettage in one case, and with a history of manual removal of the placenta and fibroid uterus in one case each. More than one factor was associated in many cases, for example, one woman had history of prior caesarean section and also prior curettage. Only 5.35% of cases underwent total hysterectomy in our study. In the remaining 94.65% sub-total hysterectomy was performed.

CONCLUSION

EOH is a necessary evil in obstetrics. Although it curtails the future child bearing potential of the woman, in many cases it saves the life of the mother. Most of its morbidity is attributable to its indications and underlying disorders rather than to the procedure itself. To conclude, our results demonstrated an increasing trend in the rate of Obstetric hysterectomy in parallel with an increasing rate of previous LSCS, emphasizing the importance of the mode of delivery. In spite EOH being a life saving measure, there occurs significant number of maternal deaths which can be prevented by good maternal care, active management of labor, early recognition of complications, timely referral, and easy availability of transport and blood transfusion facilities.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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TABLE 1: RISK FACTORS

Risk factors	Numbers	Percentage
Age of 35 years or more	7	18.9%
Prior caesarean section	24	64.8%
Prior myomectomy	2	5.4%
Multiple pregnancy	1	2.7%
Invitro fertilisation	1	2.7%
Traumatic	2	5.4%

TABLE 2: INDICATIONS OF OBSTETRIC HYSYTERECTOMIES

Indications	Number	Percentage
Uterine rupture	21	37.5%
Atonic PPH	14	25%
Placenta accreta	6	10.7%
Abruption	5	8.9%
Placenta praevia	4	7.1%
Others	6	10.8%
Total	56	100%

TABLE 3: COPMLICATIONS

Complications	Number	Percentage
Shock	28	73.7%
Bladder injury	6	15.8%
Broad ligaent haematoma	2	5.26%
Cervical injury	2	5.26%
Fever	18	25.7%
DIC	15	21.4%
Septicaemia	7	10%
Wound infection	7	10%
Respiratory tract infection	6	8.5%
Acute renal failure	5	7.1%
Birth asphyxia	26	46.2%
Perinatal mortality	29	51.7%