

Peripartum hysterectomy- maternal and foetal outcome in GGH GUNTUR.

Dr B Sree Madhuri,¹ Dr L Arundathi Devi²

¹Post graduate² Assistant Professor.

Department of Obstetrics & Gynaecology, Guntur Medical College, Guntur, Andhra Pradesh.

Corresponding Author: Dr. L. Arundathi Devi.

Abstract:

Objective: To study the indications for peripartum hysterectomy, maternal and foetal outcome.

Materials and methods: A retrospective study of cases of emergency obstetric hysterectomies performed during 6 months from May 2020 to October 2020 in GGH Guntur. All the medical records were assessed and data obtained from case records in wards, intensive care units. Data was analysed for clinical characteristics, indications for surgery, intra operative findings, duration of surgery, need for internal iliac artery ligation, bladder injuries, blood loss, anaesthesia records, duration of stay and postoperative events.

Results: 13 cases of peripartum hysterectomies were performed during 6 months period. 4(30.7%) were performed due to morbidly adherent placenta, 4(30.7%) were performed due to placenta previa, 1 case due to uterine atony, one case each for uterine rupture, uterine myoma, abruptio placenta and atonic PPH, which could not be controlled medically or by other surgical interventions. All are multiparous women, 8(61.5%) cases with previous one or more caesarean section, 5 (38.5%) cases of previous vaginal deliveries. There is no case of maternal mortality and no perinatal mortality during the study period. All patients were managed in multidisciplinary settings with intensive care support during postoperative period.

Conclusion: EPH should be performed with a multidisciplinary team approach immediately. The patients at risk for uterine atony and placenta accreta should be determined before labour and necessary precautions should be taken.

Keyword: Emergency peripartum hysterectomy, placenta previa, morbidly adherent placenta.

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I. Introduction

Emergency peripartum hysterectomy is a life-saving procedure, performed to control massive haemorrhage. It is a good indicator of maternal morbidity and near miss events. Uterine atony was traditionally the common cause for peripartum hysterectomy, now a days due to increase in Caesarean section rate it is the major risk factor. Placenta previa especially with an abnormally adherent placenta is currently the most common indication for peripartum hysterectomy. Despite being the lifesaving ability, this procedure is considered to be a cause for severe maternal morbidity, in prolonged hospital stay, bladder injuries, need for massive blood transfusion and its related problems. Our aim to study then indications, maternal and fetal outcome in peripartum hysterectomy and methods to improve the outcome.

II. Materials And Methods:

Retrospective observational study, conducted at Government general hospital, Guntur over 6 months period from 1st May 2020 to 1st October 2020 during COVID 19 pandemic among women who underwent emergency peripartum hysterectomy. Informed and written consent was obtained from all participants. All the medical records were assessed and data obtained from case records in wards, intensive care units. Data was analysed for clinical characteristics, indications for surgery, intra operative findings, duration of surgery, need for internal iliac artery ligation, bladder injuries, blood loss, anaesthesia records, duration of stay and postoperative events.

Study Design: Retrospective observational study.

Study location: Government general hospital, Guntur, Andhra Pradesh.

Study duration: 6 months period from 1st May 2020 to 1st October 2020.

III. Results:

A total of thirteen cases (2.6 for 1000 deliveries) of peripartum hysterectomies were identified during a period of six months among 5232 deliveries. All patients were multiparous and 8 (61.5%) cases were previous one or more caesarean sections and 4(38.5%) cases of previous vaginal deliveries. Mean age was 27.5 years. Majority patients delivered between 36 to 38 weeks of gestational age. All patients are referred from peripheral hospitals, All patients are hemodynamically stable at the time of referral and admission. Four patients underwent peripartum hysterectomy due to morbidly adherent placenta, four cases due to placenta previa, one case each for uterine rupture,uterine myoma, abruptio placenta and atonic PPH.No case of maternal mortality, no perinatal mortality. Diagnosis of placenta adherent placenta is by ultrasonography and MRI pelvis. All cases are managed with multidisciplinary approach with help of senior obstetrician, senior anaesthetist and urologist.

Table 1. Indications for peripartum hysterectomy

Indications	Means
Placenta previa	4(30.7%)
Adherent placenta	4(30.7%)
Uterine rupture	2(15.3%)
Uterine myoma and bleeding	1(7.6%)
Abruptio placenta	1(7.6%)
Atonic PPH	1(7.6%)

Table 2. Maternal characteristics in peripartum hysterectomy patients

VARIABLES	MEAN
Age	27.5 (22-30yrs)
Gravida	3
Abortions	4
Gestational age in weeks	36
Hb deficiency	9(6.5-11g%)
Apgar score	8(7-9)
Mean blood loss	2250ml
Average blood transfusion(packed red cell units)	6 units(4-10)
Mean ICU stay	6days (2-8)
Average hospital stay	21days(14-30)
Average duration of surgery	140 minutes

Table 3. Complications

Complications	Patients
Total hysterectomy	7(53.8%)
Sub total hysterectomy	5(38.4%)
Internal iliac artery ligation	6(46.1%)
Wound infection	0
Febrile morbidity	3(23%)
Bowel injury	0
Bladder injury	1(7.6%)
Maternal mortality	0
Perinatal mortality	0

All patients had general anaesthesia. No cases of maternal or perinatal mortality.Four new born babies are admitted in SNCU in view of mild respiratory distress and discharged between day3 to day 5 of life

IV. Discussion

Postpartum haemorrhage is one of the leading causes of maternal mortality and morbidity. In cases wherein postpartum haemorrhage cannot be controlled by conventional methods, peripartum hysterectomy is the treatment of choice.The incidence of peripartum hysterectomy is 0.2- 4 per 1000 deliveries in developed countries and much high in developing countries. This incidence in our hospital is 2.6 for 1000 deliveries. As being a tertiary care centre all cases are referred from peripheral hospitals. High gravidity rates, predominantly rural population and inaccessible medical services are some of the reasons that can be advanced to explain why the incidence rates reported by us .Uterine atony was determined to be the most common indicator for EPH in our study (39.5%). However, in recent times, given the high rates of CS, uterine atony has been replaced by abnormal placentation as the leading cause of EPH [3,6,7,10-14]. The risk factors for abnormal placental invasion are placenta previa, previous uterine surgery and, curettage [9]. It is a well-established fact that an increase in the number of previous CS increases the risk for placenta accreta by about 18 to 110 fold [15,16]. Our study revealed that abnormal placental invasion is the also most common factor for EPH; this can be attributed to the an increase in rates of CS observed in recent times. High parity, labor induction, polyhydramnios, multiple gestations, and distended uterus are known to result in uterine atony [10,17,18]. In a

recent study, the most common cause of EPH is uterine atony, which complicates 1 in 40 births in the United States and is responsible for at least 75% of cases of EPH [10,19,20]. Our results are in accordance with those reported in the literature. Rapid intervention can be lifesaving in the case of postpartum haemorrhage. A decision for the hysterectomy option was only taken after exhausting all other conservative methods like uterine compression sutures or uterine/ internal iliac artery ligation. Total hysterectomy was performed on 53.8% of our cases. Present study did not reveal any statistically significant difference in hysterectomy type with respect to blood loss, the number of blood transfusions given, the total number of hospitalisation days indications for hysterectomy and other complications. In literature, some studies have reportedly found no difference in subtotal versus total hysterectomy, which is congruent with the figures reported by us whereas, some others suggest total hysterectomy as an option for avoiding haemorrhage from the cervical branch of the uterine artery [21,22]. For those who present with massive pelvic adhesions, subtotal hysterectomy is a safer option with respect to the urinary tract as it involves a lower blood loss and is less time consuming [23,24]. In our study, most complications involved over blood transfusion as well as admission to the intensive care unit. In other studies, nearly all patients required blood transfusions [6-9,21,22]. Three of our patients (25.3%) had to be admitted to the intensive care unit as they are on inotropic supports. The figures reported in our study are lower than those reported by others (15.4%, 22%, and 22.9%, respectively) [6,7,25]. In 1 cases (7.6%), it was observed that the patient sustained bladder injury. Adhesion caused by previous CS is a risk factor that predisposes the patient for bladder injuries [26]. However, in this study bladder injury is due to placental invasion into serosa of urinary bladder. It is to be noted that no maternal death was reported in our study. This can be attributed to the fact that we assessed patients with postpartum haemorrhage in the very early stages of the condition thus a decision regarding hysterectomy was taken without loss of crucial time. In other publications, maternal mortality is reported to range from 0% to 12.5% [1].

V. Conclusion

Peripartum hysterectomy is an emerging problem, which create significant maternal morbidity. Our study identifies placenta and MAP are the leading cause for peripartum hysterectomies. Identification abnormal placentation in early gestation and referral to tertiary units would have better maternal and foetal outcomes. Multidisciplinary team approach would results less morbidity and overall safety to both mother and baby.

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