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Emergency Peripartum Hysterectomy a 5 Year Retrospective Study from A Tertiary Referral Centre

Authors
Dr Rashmi Ajit[1], Dr J.Chitra[2]
[1]Assistant Professor, Department of Obstetrics and Gynaecology Kanyakumari Goverment Medical College
[2]Professor, Department of Obstetrics and Gynaecology Kanyakumari Goverment Medical College

Abstract
Objective: *To study the incidence indications and outcomes of emergency peripartum hysterectomy at a tertiary Medical College hospital in Kanyakumari, Tamilnadu, India.*
Materials and Methods: *This was a retrospective study carried out in KKGMCH from January 2012 to December 2016. Case records were received from the medical records among 12535 deliveries there were 25 EPHS giving a rate of 1.9/1000 deliveries of the 25 cases analysed there were 2 (8%) Primi Gravida and 23(92%) multi gravid. The mean age group was between 20 – 40. The indications were mostly uterine atony 28% morbid adherent placenta 20% and Placenta praevia 20%. The complications of EPH were febrile morbidity 80% need for vasopressor 88% , DIC 28% and the maternal death 24%, Re-exploration 8%*
Conclusion: *Emergency hysterectomy is a most demanding obstetric surgery performed in life threatening haemorrhage. Antenatal anticipation of the risk factors, involvement of an experienced obstetrician at an early stage of management and a prompt hysterectomy after adequate resuscitation would go a long way in reducing morbidity and mortality.*

Introduction

Emergency peripartum Hysterectomy (EPH) is a surgery performed as a life saving procedure in case of life threatenimg haemorrhage during or immediately after abdominal or vaginal delivery. Haemorrhage continues to be the most common cause of maternal death worldwide accounting for 27.1% of death as recently as 2014. The most common indication of EPH is severe uterine haemorrhage the cannot be controlled by conservative measures. The increasing rate of CS's worldwide and the concomitant rise of placenta praevia and accreta has resulted in an ever increasing incidence of EPH worldwide. Other causes of bleeding include uterine atony, uterine rupture leiomyomas, coagulopathy or laceration of uterine vessels. Recent report suggests that there is an annual increase of 8% incidence of EPH all around the world. This study is to determine the rate of EPH in our institute, the indication outcomes in order to make recommend-dations that will reduce the incidence of the procedure and improve its outcome.

Materials and Methods

This is a retrospective analytical study carried out by the department of obstetrics and gynae cology, kanyakumari Government Medical college

Hospital from January 2012 to December 2016. All the patients who underwent Emergency Peipartum Hysterectomy were identified from labour ward registers, operating room registers. The case files of all the patients were reviewed regarding the maternal delivery, mode of delivery, indications, type and complication of EPH. The data were analyzed using simple proportion, rates and tables.

Results

There were a total of 12,535 deliveries at our institute of which the vaginal and caesarean deliveries were 5131 and 7404 respectively. Life saving EPH was performed in 25 cases and incidence of EPH was 0.19%.

Table I: Data of obstetric intervention at our institute during the study period

VARIABLES	NUMBERS
Vaginal deliveries	5131
Caesarean deliveries	7404
Total deliveries	12535
Obstetric hysterectomy	25
Incidence of EPH	1,9 per 1000 deliveries

The youngest woman to undergo hysterectomy was 22 years and the oldest women was 36 years. Majority of the women belonged to the age group between 26 to35. The incidence was around 36% in both the age groups of 26-30 and 31-35.There were no patients below the age of 20 and above 36 years was only incidence.

Table II: Parity distribution shows that EPH is common in multiparous.

Age	P1	P2	P3	P4	Total	%
<20	-	-	-	-	-	0%
21-25	2	2	1	-	5	20%
26-30	-	6	2	1	9	36%
31-35		3	5	1	9	36%
36-40		2			2	8%
	2(8%)	13(52%)	8(32%)	2(8%)	25	100%

The operative notes and histology reports of the uterus and placenta were used to determine the final reason for hysterectomy.

The indications were adherent placenta(20%), placenta previa (20%), uterine Atony(28%), Traumatic PPH with uterine atonicity (12%), Rupture uterus(2%),inversion of uterus (2%)and sepsis(1%).

Abnormal placentation including invasive placental adhesion and placenta previa were present in 40% of the cases. Out of the 5% cases of morbidly Adherant placenta, 1(20%) case was percreta, 2(40%) cases were increta and 2(40%) cases of accrete. Of the 5 cases of placenta previa, there was 1 case associated with increta. All the cases of placenta previa who underwent EPH were central placenta previa.

EPH was performed in primipara 2(8%) and multipara 23(92%) women and in our study Uterine atonicity remains the major cause inspite of the rising incidence of abnormal placentation. In both the primipara in whom hysterectomy was perfomed, the cause was Uterine Atonicity.

Table III: Indications of EPH in our study and comparison between paimipara and Multipara

Indications	No of cases	%	Paimipara (%)	Multipara	(%)
Morbid Abherant placenta (accrete, increta,percreta)	5	20%		5	21.7
Placenta Previa	5	20%		5	21.7
Uterine Atony	7	28%	2(100%)	5	13.0
Traumatic PPH with atonicity	3	12%		3	8.7
Rupture,Utreus	2	8%		2	8.7
Inversion of uterus	2	8%		2	4.3
Sepsis	1	4%		1	
	25	100%	2(100)%	23(100%)	

On analysis of the risk factors of Emergency peripartum Hysterectomy Multiparity (92%) placental factors (44%) were a major risk factors. Most of the previous caesareans 6(32%) cases were associated with placental factors.

Total Hysterectomy was performed in all the 25 cases. On analysis we found that 80% of the patients had post operative pyrexia and all the patients were given blood transfusion.28% of patients went in for DIC, of which 5 patients could not be salvaged.

Inspite of being a life saving 24% mortality has been noted.

Table IV : Risk factors for Emergency peripartum Hysterectomy:

Risk factor	Number	Percentage
M ultiparity	23	92%
Obstructed Labour	4	16%
Previous Caesarean	8	32%
Placental Factors	11	44%
Abruption	7	28%

Table V : Morbidity and mortality in patients who had EPH:

Variables	Number	Percentage
Wound sepsis	3	7.5%
Pyrexia	20	80%
Need for vasopressor	22	88%
Blood Transfusion	25	100%
Maternal death	6	24%
Re-expl;oration	2	8%
DIC	7	28%
Bladder injury	-	-

Discussion

The incidence of EPH in our study was 0.19%.This rate is high when compared to the developed countries where the incidence in 0.08% in Columbia. US has a rate of 0.06%.The studies from Nigeria showed an incidence of 0.22%

Studies from India by chawla et al [4] showed a rate of 0.08%.Studies by Ranjani Patil et al [9] showed an incidence of 0.14%.The higher rate of EPH in our study can be attributed to the fact that our centre is a tertiary referral hospital receiving unbooked cases from rural areas in a very deteriorated and critical condition.

A high association of multiparity (92%) with EPH was observed in our study similar to chawla et al [4] (82%), ohonsi et al (60%) and Ranjani Patil et al [9] (82%). In P4 and above only 8% were observed in the present study.

The most common indication in the study is Atomic PPH(28%) followed by Morbidly Adherant Placenta(20%) and Placenta previa (20%).In 1984 Stanco et al [5] reported 43.4% of their EPH were due to uterine atony while 33.9% were due to placenta previa with accreta. A study from the same institute in 1993 stated that their primary indication was placenta accrete. Similarly high rate of EPH for Rupture uterus were also reported by Archana et al, ohonsi et al [8] (73%). This study demonstrates that our frequent indication for EPH is both uterine atony and abnormal placentation which were at rates of 28% and 20% respectively. The indication for EPH due to rupture uterus was only 8% in this study. This shows that our parturants had better Antenatal check ups and were referred promptly anticipating complications.

In maternal morbidities, pyrexia was the commonest in the present study and most of it was tackled by higher Antibiotics. It could also be due to massive blood transfusions.

All the patients needed blood transfusion. Similar results were reported in the study by Ranjani Patil et al. [9]. DIC was common in this review at a rate of 28% and this observation stresses the importance of prompt availability of blood. Similar results were found in the studies reported by Smith and Mousa and Lau et al.

Re-exploration was done in 2 cases for persistent post-operative bleeding. Studies from Nigeria showed a mortality rate of 14.3% and chawla et al [4] reported 18% and ohonsi et al 13.3%.The maternal mortality rate of 24% in this study may have been largerly due to the moribund cases which presented late to the hospital leaving no time for maternal salvage.

Conclusion

EPH in our study mainly contributed by uterine atony and abnormal placentaion and severe life-threatening hemorrhage requires hysterectomy though it is associated with high maternal morbidity and loss of future fertility.

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