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EMERGENCY OBSTETRIC HYSTERECTOMY:A 11 YEARS STUDY

KEYWORDS: Emergency obstetric Hysterectomy, Atonic PPH, Rupture uterus, Subtotal Hysterectomy

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ABSTRACT

BACKGROUND : *Hysterectomy was originally employed in obstetrics a 100 years ago as a surgical attempt to manage life threatening obstetrical hemorrhage and infection.*

Nowadays, it is generally performed as life saving procedure in a case of rupture uterus, resistant PPH, morbid adhesion of placenta and uterine sepsis.

METHODS *:* ***STUDY DESIGN:*** *Retrospective analytical study*

STUDY PERIOD: *2005-2015.*

To evaluate the incidence , maternal profile, type and maternal outcome in emergency obstetric hysterectomy over 11 years (2005-2015) in Institute of social obstetrics, Govt. Kasturba Gandhi hospital, Chennai.

RESULTS : *Total number of deliveries between 2005-2015 was 1,05,630.*

Total number of peripartum hysterectomies was 49. Incidence of emergency hysterectomy in our hospital was 0.42/1,000 live births.

CONCLUSION : *The incidence of emergency obstetric hysterectomy in our study was 0.42/1000 live births.*

Majority of women 69.4% belonging to the age group 26 to 35 years. Parity distribution also positively skewed, no of cases increases with parity.

Atonic PPH being the most common indication for emergency hysterectomy. It accounts for 51% cases. Rupture uterus in 30.6% of cases. Placenta accreta in 16.3 % of cases. Placenta percreta in 2% of cases.

In 71.43% of cases subtotal hysterectomy was done as it has less operating time and less morbidity comparing with total hysterectomy.

Maternal mortality was 8% in our study.

INTRODUCTION

Hysterectomy was originally employed in Obstetrics a hundred years ago as a surgical attempt to manage life threatening obstetric haemorrhage and infection. Now-a-days it is generally performed as a life saving procedure in cases of rupture uterus, resistant PPH, morbid adhesion of Placenta and uterine asepsis .

The most common indication for emergency procedure is severe haemorrhage that cannot be controlled by conservative measures. Such haemorrhage may be due to an abnormally implanted placenta , uterine atony, uterine rupture, coagulopathy, or laceration of a pelvic vessel.

However, more recent case series and national databases shows that more cases are now associated with Caesarean delivery. Caesarean delivery for placenta previa carries a relative risk of 100 for peripartum hysterectomy, with patients having a diagnosis of placenta accreta.

AIM OF STUDY

Hysterectomy performed at or following delivery may be life saving if there is severe obstetrical haemorrhage. Emergency Obstetric Hysterectomy remains an essential weapon in obstetrician armoury. Hence it is important to know the general indices, changing trends and indication of this procedure.

In my study Hysterectomy following resistant atonic PPH, ruptured uterus and placenta accrete were taken.. Hysterectomy in early pregnancy for non-obstetric indications were excluded. KEEPING THIS IN MIND THAT THE PRESENT STUDY WAS TAKEN WITH AN AIM TO EVALUATE THE INCIDENCE, MATERNAL PROFILE, INDICATIONS, MATERNAL OUTCOME OVERPAST 11YEARS (2005-2015) IN OUR INSTITUTION.

MATERIALS AND METHODS

Emergency Obstetric Hysterectomy encompasses hysterectomies that were performed in the immediate post partum period both following normal delivery and Caesarian sections.Case sheets of emergency hysterectomy for these major indications were taken and analysed. It is a retrospective analytical study over past 11 years 2005-2015 in

Volume : 6 | Issue : 8 | August 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

our ISO KGH. Forty nine cases were done during 2005-2015.

Each case sheet is analysed in detail in regard of age, parity, indication, type of hysterectomy, and post operative complications. Detailed history and examination findings from case sheet noted. Emphasis was given on any obstetric interference/ previous surgeries and risk factors.

In cases of PPH, hysterectomy was carried out only when all conservative measures failed. Medical management includes 20U synto drip,intramuscular syntocin, iv Methergin, inj. Prostadin, rectal misoprostol which of these tried in each case is noted. Whether uterine artery ligation, internal iliac ligation and B-lynch done or not were noted, whether subtotal or total Hysterectomy done were noted.

In cases of rupture uterus type/ extent/ site/ size/ involvement of uterine vessels/ broad ligament hematoma/ colporrhexis/ bladder involvement were looked for. Decision on hysterectomy in cases of rupture taken depending on age/ parity/ extent of rupture. Bladder and Bowel repair done or not were noted.

Intra operative and post operative complications, duration of hospital stay and condition at discharge noted. In cases of maternal mortality, cause of death was analysed..

RESULTS AND ANALYSIS

INCIDENCE

Total number of deliveries between 2005-2015 was 1,05,630. Total number of peripartum hysterectomy was 49. **Incidence of Emergency Hysterectomy in our Hospital was 0.42/1000 Live Birth**.

STUDY PERIOD 2005 – 2015

TOTAL NUMBER OF DELIVERIES – 1,05,630

TOTAL NUMBER OF CAESAREAN SECTION – 49,515

TOTAL NUMBER OF OBSTETRIC HYSTERECTOMIES – 49

TOTAL NUMBER OF LSCS ENDING IN OBSTETRIC HYSTERECTOMIES - 32

INCIDENCE OF EMERGENCY HYSTERECTOMY FOLLOWING CAESAREAN SECTION WAS 0.6/1000 LIVE BIRTHS .

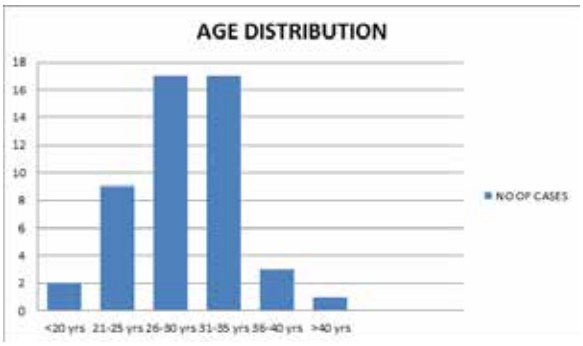
DURATION	Caesarean section/ Total Deliveries %	Incidence of Obstetric Hysterectomies/ 1000 live births	Obstetric Hysterectomy with H/O Caesarean Section
2005-2015	46%	0.42	32(65%)

Among the total deliveries 46% were delivered by LSCS. Within 49 hysterectomies, 32[65%] hysterectomies were following caesarean section. Only 17(35%) hysterectomies were following labour natural.

MATERNAL CHARACTERISTICS

AGE:

AGE	NO.OF CASES	PERCENTAGE
<20	2	4.1
21-25	9	18.4
26-30	17	34.7
31-35	17	34.7
36-40	3	6.1
>40	1	2
TOTAL	49	100



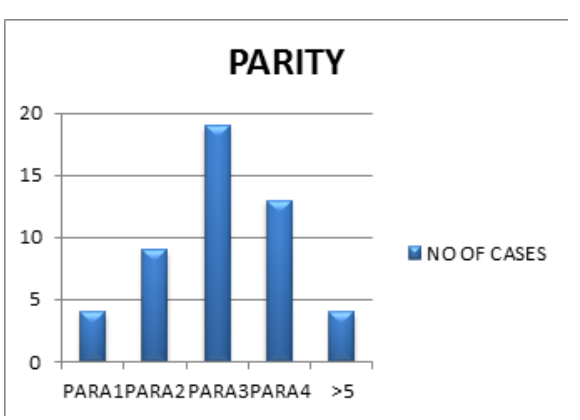
The majority of women belong to the age group 26-35 years 69.4%. 9 women(18.4%)belong to age group of 21-25. Only 2 women less than 20 years has undergone emergency hysterectomies.

DISTRIBUTION OF PARITY

4 Women were primipara and 4 others grand multipara. The remaining 83.6% belonging to parity 2, 3 and 4. The total no of cases in 4th and 5thgravida is less probably as a result of awareness regarding sterilization.

PARITY:

Parity	No of Cases	Percentage
1	4	8.16
2	9	18.37
3	19	38.78
4	13	26.53
>5	4	8.16
TOTAL	49	100

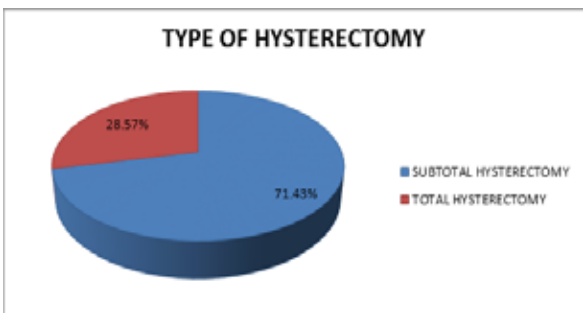


Volume : 6 | Issue : 8 | August 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

TYPE OF HYSTERECTOMY
Subtotal hysterectomy was the most commonly performed operation during these past 10 years in ISO KGH. It is said to be a safer procedure and may be quicker and associated with less post operative morbidity.

SUBTOTAL HYSTERECTOMY – 35
TOTAL HYSTERECTOMY – 14
ACCORDING TO PRESENT SERIES

71.43 cases were subtotal hysterectomies, 28.57% cases were total hysterectomies



INDICATIONS FOR PERIPARTUM HYSTERECTOMY
Three common indications are Resistant atonic PPH, Rupture uterus, Adherent Placenta.

INDICATIONS	Frequency	Percent
Placenta accreta	8	16.3
Placenta percreta	1	2
Atonic PPH	25	51.0
Ruptured Uterus	12	24.5
Ruptured Uterus with Bladder involvement	3	6.1
TOTAL	49	100

POST OPERATIVE COMPLICATIONS

COMPLICATIONS	FREQUENCY	PERCENT
No complication	24	49
Coagulopathy	2	4
Febrile Morbidity	15	32.6
Infection	5	8.2
Jaundice	1	2
Paralytic ileus	1	2
VVF	1	2
Total	49	100

MATERNAL MORTALITY
There were 4 Maternal deaths giving a maternal mortality rate of 8%.

CAUSES:
1.Hypovolaemic shock -2

2.DIC -2

DISCUSSION
An obstetric hysterectomy is a life saving procedure, so timely decision, good surgical skills are very important that affect the maternal outcome[1]. The frequency of emergency obstetric hysterectomy in our study was 0.46 per 1000 deliveries which is similar to study by Joana Ferreira carvalho et al[2] (0.41) and prachi saurabh koranne P S et al[4](0.40). But the incidence are low in study by kant anita and wadhwani kavita[3](0.26).

The following table shows incidence of emergency obstetric hysterectomy in various studies.

SL.NO	STUDY	PERCENTAGE
1	Sinha and mishra[5] 2001	0.38
2	Kanwar et al[6] 2003	0.32
3	Praneshwaridevi et al[7] 2004	0.07
4	Kant anita and wadhwani kavita[3] 2005	0.26
5	Joana Ferreira carvalho et al[2] 2012	0.41
6	Prachi saurabh korrane P S et al[4] 2015	0.40
7	Present Study	0.46

In developing countries emergency obstetric hysterectomy is frequently performed for uncontrolled PPH and rupture uterus[8], whereas in developed countries common indications are related to pre existing gynaecological conditions such as uterine fibroid, carcinoma cervix and ovarian malignancies[9].

In our study majority were in the age group of 26-35 years (69.4%) which is similar to study by kant anita and wadhwani kavita[3] where 61% of women in age group of 26-35 years. But in study by joana ferreria carvalho et al[2] majority were more than 35 years.

In Our study 8.16% women were primi and 8.16% were grand multi. The remaining 83.6% belonging to parity of 2,3,4. Majority were multiparous, similar trend was observed by Amad and Mir[10].

In our study the incidence of emergency obstetric hysterectomy following caesarean section was 0.6 / 1000 live births. Stanco et al[11] found that previous caesarean section increases the risk of obstetric hysterectomy by 15-20 times. In our study 65% of emergency obstetric hysterectomy were with H/O caesarean section, 35% of cases were followed by vaginal delivery.There is great association of emergency obstetric hysterectomy with caesarean delivery compared to normal vaginal delivery in our study,which is similar to study by Juneja et al[12] and study from Turkey[13].

In our study atonic PPH was the common indication for emergency obstetric hysterectomy. It accounts for 51% of cases.This is similar to study from tertiary care centre from Portugal[2] and study by kant anita and wadhani kavita[3].A study from UK[14] also revealed atonic PPH to be the most common indication for emergency obstetric hysterectomy. But recent studies have stated that abnormal placentation is the commonest indication[15].

In study by parmar prakash et al[16], Nooren M[17], El Nwobodo and DC Nnadi[18] showed rupture uterus was the commoner indication followed by atony and morbid adherent placenta. Rupture uterus was (6.1% +24.5%=30.6%) 30.6%

Volume : 6 | Issue : 8 | August 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

in our study. Uterine rupture provides a strong indication for emergency obstetric hysterectomy especially when the rupture is massive or when it ocurrs in a grand multiparous women[19].

Abnormal placentation was 18.3%(16.3%+ 2.0%) in our study whereas study from UK[14] and TURKEY[13] showed a 40% and 38%of cases respectively.

Subtotal hysterectomy was most commonly performed in our study (71.43%).In study by parmar prakash et al[16] 70% cases were subtotal hysterectomy and 30% were total hysterectomy. Study by Mrinalini S et al[20] reported the rate of 40% subtotal hysterectomy. Many reports have advocated that subtotal hysterectomy offers more advantages of less damage to urinary tract, less blood loss and to take less time to complete the procedure in the face of hemodynamic compromise[21].

Febrile morbidity was 32.6% in our study the most common morbidity which is similar to study by Pradhan M, Yong S[22] and by Juneja et al[12].

Bladder injury was 6% in our study, whereas the incidence of urinary tract injury in study from UK[14] was around 12.2%. This is because in our center 71.43% underwent subtotal hysterectomy.

VVF was 2% in our study, but it was 7.3% in study from Nigeria[23].

Coagulopathy was 4% in our study,where as in study by Joana Ferreira Carvalho et al[2] showed 30.7% of coagulopathy. The study by Smith and Mousa[24] and Lau et al[25] showed 33% of coagulopathy in their study.

MMR was 8% in our study, where as 9.7% in study by kant anita and wadhwani kavita[3]. Sturdee Rushton[26] reported no mortality in their series of 47 cases.

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