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Original Research Article

Analysis of obstetrics hysterectomy in tertiary care centre

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ABSTRACT

Background: Emergency peripartum hysterectomy (EPH) is an uncommon obstetric procedure, usually performed as a life-saving measure in cases of intractable obstetric hemorrhage. Obstetrics hysterectomy is performed on gravid uterus during pregnancy labor puerperium. It is a catastrophic inevitable lifesaving emergency procedure in cases of rupture uterus, uncontrollable post-partum haemorrhage, morbidly adherent placenta, and some cases of trauma, sever infection of pregnant uterus. Newer drug like prostaglandins, antibiotics and blood transfusion has brought down the incidence of obstetric hysterectomy.
Methods: This retrospective study is performed in department of obstetrics and gynaecology SZH Gandhi medical college Bhopal. Retrospective analysis of record done.
Results: In this study there were 51867 deliveries and 99 0bstetric hysterectomy giving the incidence as 1 in 524 deliveries. There were 17113 cesarean section performed hence the incidence as 1 in 173 cesaren section. Majority of patient belong to group para 4 and above i.e. 32.32%. Least incidence is among nullipara patient i.e. 2.02%. The most common indication of obstetric hysterectomy in this study was morbidly adherent placenta, 52 cases i.e. 52.52%% Rupture uterus was second common indication accounting for 36.36% of cases. Most common additional surgical procedure done during obstetric hysterectomy was repair of bladder tear and salpingoophrectomy done in 7 cases i.e. 7.07% of each. Repair of bowel injury done in 1 case i.e. 1.01%.
Conclusions: Incidence of maternal mortality in cases of obstetric hysterectomy was 9.09%. most common cause of maternal mortality was haemorrhagic shock accounting for 55.55.

Keywords: Haemorrhage, Haemorrhagic shock, Obstetric hysterectomy

INTRODUCTION

Emergency peripartum hysterectomy (EPH) is an uncommon obstetric procedure, usually performed as a life-saving measure in cases of intractable obstetric hemorrhage.[1-3] It was first proposed in 1869 but with no desirable results.[4]

However, seven years later (1876), the first caesarean subtotal hysterectomy was carried out successfully, with the result that both the mother and the baby survived.[5] Severe postpartum haemorrhage was reported to occur in 6.7/1,000 deliveries worldwide. It is one of the leading causes of maternal mortality and morbidity and represents the most challenging complication that an obstetrician will face.[6]

Obstetrics hysterectomy is performed on gravid uterus during pregnancy labor puerperium. It is a catastrophic inevitable life saving emergency procedure in cases of rupture uterus, uncontrollable post partum haemorrhage, morbidly adherent placenta, and some cases of trauma, sever infection of pregnant uterus and its contetnts sometimes requires hysterectomy. Planned obstetrics

hysterectomy can be performed in condition like pregnancy associated with carcinoma cervix and invasive molar pregnancy diagnosed ultrasonographically.

Newer drug like prostaglandins, antibiotics and blood transfusion has brought down the incidence of obstetric hysterectomy.

The incidence of obstetrics hysterectomy varies from centre to centre depending upon available obstetrics facility like antenatal care, intranetal meticulous monitoring, trained paramedical personnel and obstetrics performance at peripheral medical centre.

METHODS

This retrospective study is performed in department of obstetrics and gynaecology SZH Gandhi medical college Bhopal, MP, India. 99 cases of obstetrics hysterectomy were done over a period of 4 year. Hysterectomy for any indication during pregnancy, labor and puerperium has been studied and we also include hysterectomies done for uterine perforation, sepsis, following MTP.A detailed analysis of condition of patient, indication for obstetrics hysterectomy, intraoperative and post-operative complication was made using data from indoor sheet, treatment chart, operation theatre record, operation notes, delivery record, maternal mortality record. Relevant data were extracted and analysed using predesigned form.

RESULTS

In this study there were 51867 deliveries and 99 0bstetric hysterectomy giving the incidence as 1 in 524 deliveries. There were 17113 cesarean section performed hence the incidence as 1 in 173cesaren section.

Table 1: Incidence of obstetrics hysterectomy.

Statistical data	Number
Total delivery	51867
Total caesarean	17113
Number of total obstetric hysterectomy	99
Incidence of obstetric hysterectomy/ delivery	0.19%
Incidence of obstetric hysterectomy/ cesarean	0.57%

Table 2: Incidence of obstetrics hysterectomy cases according to age group.

Age (year)	No. of cases	Percentage
≤20	2	2.02
21-25	56	56.56
26-30	26	26.26
31-35	10	10.10
36 or more	5	5.05

Maximum patient belongs to 21-25 year age group i. e. 56.56%. Least incidence is among ≤20 years i.e 2.02%.

Table 3: Distribution of obstetrics hysterectomy cases according to parity.

Parity	Number of cases	%
0	2	2.02
1	23	23.23
2	29	29.29
3	13	13.13
4 and above	32	32.32
	99	

Majority of patient belong to group para 4 and above i. e. 32.32%. Least incidence is among nullipara patient i. e. 2.02%.

Table 4: Incidence according to religion.

No. of cases in Hindu	No. of cases in Muslim
56	43

Majority of patient were Hindu.

Table 5: Incidence according to residential area.

No. of cases in rural	No. of cases in urban
68	31

Majority of patient belong to rural area.

Table 6: Incidence according to elective/emergency status.

Elective /emergency cases	Number of cases	Percentage
Elective	4	4.04
Emergency	95	95.95

Only 4 obstetric hysterectomy performed were elective rest were emergency accounting for 95.95% of total cases.

Table 7: Indication of obstetrics hysterectomy.

Indication	No. of cases	Percentage
Rupture uterus	36	36.36
PPH	9	9.09
Morbidly adherent placenta	52	52.52
Perforation during MTP	00	0
Septic abotion	1	1.01
Puerperal sepsis	00	0
Ectopic pregnancy	01	1.01
Vesicular mole	00	0

The most common indication of obstetric hysterectomy in this study was morbidly adherent placenta ,52 cases i. e. 52.52%. Rupture uterus was second common indication accounting for 36.36% of cases.

Table 8: High risk factors for common indication of obstetric hysterectomy.

Risk factor	No. of cases
Rupture uterus	
Multiparity	21
Obstructed labor	05
Previous LSCS	04
Malpresentation	03
Accidental haemorrhage	01
Prolonged labor	02
Obstetric manipulation	00
PPH	
Atonic uterus	08
Placenta previa	01
Morbidly adherent placenta	
Placenta accreta	28
Placenta previa	05
Previous LSCS	19

For morbidly adherent placenta, placenta accrete was high risk factor for 53.84% cases. For rupture uterus multiparity was high risk factor for 58.33% cases. For PPH, uterine atony was the most common risk factor accounting for 88.88% cases.

Table 9: Type of hysterectomy.

Type	No. of cases	Percentage
Subtotal	01	1.01
Total	98	98.98

Most of the hysterectomy was total hysterectomy accounting for 98.98%.

Table 10: Other additional surgical procedure performed with hysterectomy.

Procedure	Number of cases
Repair of bladder tear	07
Repair of bowel injury	01
salpingoophrectomy	07
Ureteric anastmosis	01

Table 11: Maternal morbidity and mortality in obstetric hysterectomy cases.

Causes	No. of cases
Febrile illness	42
UTI	20
Wound infection	40
Coagulopathy	8
Endotoxic shock	8
Burst abdomen	10

Most common additional surgical procedure done during obstetric hysterectomy was repair of bladder tear, and salpingoophrectomy done in 7 cases i.e. 7.07% of each. Repair of bowel injury done in 1 case i.e. 1.01%.

Most the patient have combination of complication like febrile illness and wound infection. Majority of patient i.e. 42.42% cases suffered from febrile illness.

Table 12: Causes of maternal mortality in obstetric hysterectomy cases.

Cause	No. of cases	Percentage
Haemorrhagic shock	5	55.55
DIC	1	11.11
Septisemic shock	1	11.11
Pulmonary oedema	1	11.11
Acute renal failure	1	11.11

Incidence of maternal mortality in cases of obstetric hysterectomy was 9.09%. most common cause of maternal mortality was haemorrhagic shock accounting for 55.55%.

DISCUSSION

Hysterectomy is radical procedure because obstetrics future of patient is sacrificed. This retrospective study carried out in Department of Obstetrics and Gynecology Gandhi Medical College, Bhopal, Madhya Pradesh, India for a period of 4 year.

The incidence of obstetric hysterectomies is now decreasing due to increase in institutional delivery. The incidence varies centre to centre, depending upon the obstetrics facility at the peripheral health centre. There was 51867 of total delivery and 99 obstetrics hysterectomies giving incidence of 0.19%, similar study was conducted by Singh and nagnath were out of 11730 confinement over a 5 year study period, there was 51 obstetrics hysterectomies.[7] The incidence was 0.435%. other similar study of Razia et al showed incidence of 0.275 %, while Panagar SR obstetrics hysterectomy incidence 0.36%, and Mysno K incidence was 0.10%.[8-10]

Majority of patient in this study belong to age group of 21-25 year which contribute to 56.6% of total hysterectomies cases. Study conducted by Sinha et al showed that most of the patient belong to 26+ age group. While mean age for obstetric hysterectomy is 39.5 year in study conducted by Panagar SR.

Out of 99 of total obstetrics hysterectomy nulipara were 2 and grand multy were 32. This indicate as the parity increase risk of rupture increase.

In this study most of the cases were emergency i. e 95.95% while elective was 4.04% it is comparable to Amiye et al where 96.23% were of emergency cases and elective were 3.77%.[12]

Most of the hysterectomy are total hysterectomy in our study while 88% of hysterectomy were subtotal in study by Mysno K.

The most common indication of obstetrics hysterectomy in this study is for morbidly adherent placenta, incidence being 52.52%, second common indication is rupture uterus 36.36%. While study conducted by Dutta DC et al have incidence of rupture uterus as indication of obstetrics hysterectomy is 67%.[13]

Study by Korejo R et al most common indication for obstetric hysterectomy was rupture uterus in 47.10%, morbidly adherent placenta 17.30%. Similarly, a study by Panagar SR most common indication for obstetric hysterectomy was rupture uterus 60%, atonic PPH 17.78%, uterine perforation 8.89%, morbidly adherent placenta 6.67%. Study by Parmar et al obstetric hysterectomy was done for rupture uterus 51%, morbidly adherent placenta 8%, MTP perforation 8%, atonic PPH 8%, ectopic pregnancy 3%.[14]

In today's scenario increase incidence of caesarean section and high number of repeat caesarean section due to reluctance of obstetrician for vaginal birth after caesarean delivery has raised the incidence of obstetrics hysterectomy due to placenta accreta. In this study three most common factor responsible for morbidly adherent placenta are placenta accrete in 53.84%, placenta previa in 9.6%and previous LSCS in 36.5%.

Repair of rupture bladder is most common additional surgical procedure performed during obstetrics hysterectomy in this study.it was done in 7 cases. salpingoophrectomy done in 7 cases, ureteric anaatmosis in 1 cases while bowel injury repair in 1 case. in study conducted by Kore S et al among 34 cases, additional surgical procedure done in 10 cases out of which adenexectomy done in 4 cases, hypogastric ligation in 3 cases, bladder repair in 1 case, repair of bowel injury in 1 case and ureteric injury repair in 1 case.

Similarly, Panagar SR study having bladder injury repair in 6.67% and Razia et al study bladder repair in 2% cases.

Febrile illness and wound infection is most common maternal morbidity in our study i. e. 42.42%. The result of present study is comparable with Panagar SR, fever was in 33.3%, UTI in 22.22%.

In this study there were 9 maternal death accounting for an incidence of 9.09%. Most common cause of mortality was haemorrhagic shock in (5 cases) accounting of 55.55 % of mortality. other cause being DIC (1 case), septicemic shock (1 case), pulmonary edema (1 case), acute renal failure (1 case). The result are comparable with Korejo R et al study denote 9% maternal death in obstetric hysterectomy cases, and 1.65% due to DIC, 0.8% due to ARF, 2.5% due to haemorragic shock.

Study by Mysno K revealed 4% maternal death and Aras et al study having maternal death in 6.41% of obstetric hysterectomy cases.[15]

CONCLUSION

Emergency obstetric hysterectomy remain a necessary tool for consultant obstetrician who need to act at optimal time with clear judgement during surgical technique to reduce mortality and morbidity in such cases.

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

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