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Research Paper

Emergency Obstetric Hysterectomy: A Life Saving Procedure in Primary and Secondary Post Partum Haemorrhage

Medical Science

KEYWORDS : Obstetric hysterectomy, PPH, secondary PPH

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ABSTRACT

Objectives: To study the cases of obstetric hysterectomy performed over a one year period (August 2014-July 2015) in a tertiary institute to determine the incidence, indications, risk factors, complications and clinical outcome of the same. Materials and Methods: Data was collected from the records and 15 cases were identified over the study periods which were studied in detail. Results: There were a total of 4979 deliveries in the study period and 15 patients needed an obstetric hysterectomy giving an incidence of 0.3%. Atonic primary post partum haemorrhage (PPH) was the most common indication which was seen in 60% of cases. There were two cases of secondary PPH (13.3%) which required hysterectomy. Maternal death was seen in two cases. Conclusion: Obstetric hysterectomy continues to be a life saving procedure in cases of intractable haemorrhage in the immediate post partum period as well as beyond 24 hours in certain cases of massive secondary PPH.

Introduction

Obstetric hysterectomy is the removal of the uterus at any time during pregnancy, delivery and peurperium. It is usually done as an emergency life saving procedure in cases of intractable haemorrhage in the immediate post partum period (Primary PPH) as well as in cases of secondary haemorrhage which occurs after 24 hours. Rarely, it may also be done as a planned procedure in cases of morbid adherence of placenta diagnosed in the antenatal period. In spite of introduction of newer methods of managing severe haemorrhage, hysterectomy continues to be the definitive answer to managing life threatening primary as well as secondary haemorrhage. It is important to take the decision of performing the hysterectomy in time as the morbidity and mortality associated with the procedure is mainly related to the delay in taking the decision.

Objectives

- To determine the incidence of obstetric hysterectomy
- To find out the indications and risk factors in these patients
- To study the complications and the clinical outcome associated with these patients

Material and Methods

The numbers of cases of emergency obstetric hysterectomy were studied retrospectively over a period of 1 year from August 2014 to July 2015 in the Department of OBG in Goa Medical College. The data was obtained from the operation theatre records, case papers and mortality register. This data was analysed for the demographic features, risk factors, indications, post operative complications and perinatal outcome.

Results

There were a total of 4979 deliveries in the study period and 15 cases of emergency hysterectomy giving an incidence of 0.3% (3/1000). The total number of vaginal deliveries was 3242 and 7 patients were taken for obstetric hysterectomy following vaginal delivery giving an incidence of 0.21%. The numbers of caesarean deliveries were 1737 and 8 patients needed obstetric hysterectomy following caesarean delivery giving an incidence of 0.46%. (Table 1)

Statistical Data	Number
Number of vaginal deliveries	3242
Number of caesarean deliveries	1737
Total number of deliveries	4979
Number of obstetric hysterectomies	15
Incidence of obstetric hysterectomies	0.3%
Number following vaginal	7
Incidence following vaginal	0.21%
Number following caesarean	8
Incidence following caesarean	0.46%

Table 1: Incidence of obstetric hysterectomy

The maximum numbers of patients totalling 5 were in the age group of 26-30 years. The maximum numbers of patients were of parity 2. (Table 2)

Age (years)	Parity			Total
	1	2	3	
21-25		3		15
26-30	2	2	1	
31-35		4		
36-40		1	1	
41-45	1			
Total	15			

Table 2: Age and Parity wise distribution

There were 3 booked and 12 unbooked patients in our study population. The unbooked patients were referred from peripheral health centres and private practitioners. (Figure 1)

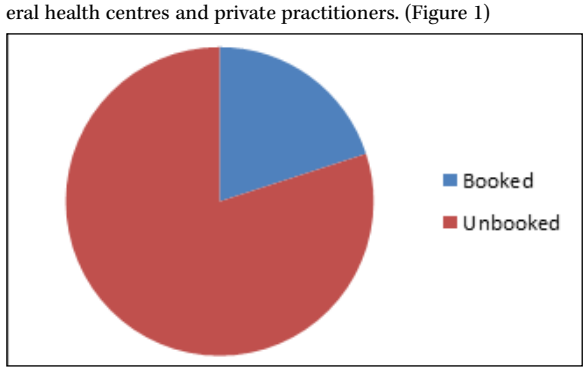

Figure 1: Distribution of booked and unbooked patients

In our series, the indication for hysterectomy in 9 of our patients was atonic PPH, which contributes to 60% of the cases. Around 4 were because of morbid adherence of the placenta, which was 26.6%. We had 2 cases of secondary PPH, which was 13.3% of the cases. Out of these 2, one was done 8 days after a vaginal delivery and the second was done on 35th post operative day of LSCS, both for torrential haemorrhage leading to shock. We did not have any hysterectomies for rupture uterus in the study period. (Table 3)

Indication	No. of patients	Percentage
1^0 PPH – Atonic	9	60%
1^0 PPH – Mixed	-	-
Morbid adherence of placenta (accreta)	2	13.3%
Morbid adherence of placenta (percreta)	2	13.3%
2^0 PPH	2	13.3%

Table 3: Indications of obstetric hysterectomy

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The complications seen were bladder injury, wound infection, febrile illness, disseminated intravascular coagulation and acute kidney injury. Unfortunately, we lost 2 of our patients, both to massive bouts to atonic PPH who developed irreversible haemorrhagic shock in spite of hysterectomy and aggressive replacement with blood and blood products. (Table 4) The patients received red packed cells ranging from 3-10 units and various units of fresh frozen plasma, platelet concentrate and cryoprecipitate as per the needs of the patient. All the hysterectomies performed in our study were total hysterectomies except in one case of atonic PPH where we had to perform subtotal because of the moribund condition of the patient.

Complications	Number
Bladder injury	2
Wound infection	2
Febrile illness	2
DIC	3
AKI	1
Death	2

Table 4: Complications of obstetric hysterectomy

The risk factors seen were caesarean delivery in 8 patients, multiparity in 11 patients and age>35 yrs in 3 patients. (Figure 2)

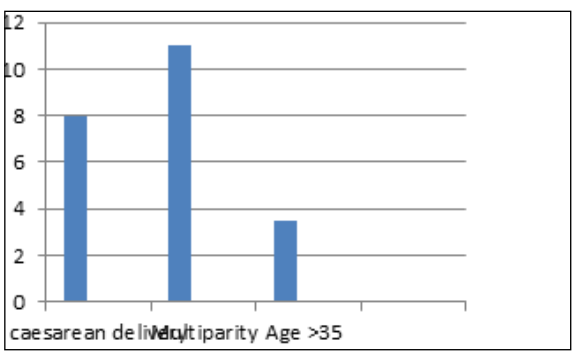

Figure 2: Risk factors for obstetric hysterectomy

The perinatal outcome was stillbirth in 3 patients, neonatal death in 2 patients and live births in 10 patients. (Table 5)

Stillbirth	3
Neonatal death	2
Live birth	10

Table 5: Neonatal outcome

Discussion

The performance of obstetric hysterectomy becomes a significant event in any obstetric practice, mainly, as the events leading to it can be life threatening for the patient and nerve wrecking for the obstetrician. Also as this signifies the loss of future reproductive potential for the patient, the decision to perform it is at times delayed leading to catastrophic consequences. But this surgery done at the right time by the right hands, that is, by senior experienced surgeons have shown to have minimal morbidity and mortality.

The incidence of obstetric hysterectomy in our study was 3/1000 which is comparable to two Indian studies where it was found to be 2.2/1000 by Pandher et al[1] and 2.13/1000 by Lamba et al[2] and an international study where it was 2.2/1000 by D'Arpe et al[3]. The most common indication in our study was PPH (60%) which was comparable to a study by Kanhere et al[4] where PPH was responsible for 63% of the indications for hysterectomy. Another two studies also found PPH as the main indication where it was responsible for 41.46%[5] and 43.3%[6] of the hysterectomies. In our study, we did not have a single case of rupture uterus as an indication for hysterectomy which is in contrast to studies by Parmar et al[7], Koranne et al[8] and Lamba et al[2]. Nooren et al[9] found rupture uterus as the most common cause. Pandher et al[1] found PPH and rupture uterus as most common indications. We found morbid adherence of placenta in 26.6% of cases as the indication for hysterectomy which was comparable to Devi et al[10] while D'Arpe et al[3] found it to be responsible for hysterectomy in 49%. We found secondary PPH responsible for hysterectomy in 13.3%. One was following LSCS which was seen on the 35th post operative day and other was following post partum endometritis. Pandher et al[1] have also reported a case of post partum endometritis leading to hysterectomy. Koranne et al[8] have also reported a case which was done for secondary haemorrhage following LSCS.

The complications seen in our study were similar to the type of complications seen in studies by Parmar et al[7] and Joana et al[11]. We had two maternal deaths (13.3%) in our study. This is comparable to a study by Nooren et al[9] where they reported three deaths (15%). Joana et al[11] reported one maternal death (7.7%). Pandher et al[1] also had one maternal death in their study. Parmar et al[7] did not report any maternal deaths. The risk factors of maternal age >35 years, multiparity and caesarean delivery in our study is similar to the risk factors outlined in the study by Joana et al[11]. We had three stillbirths and two neonatal deaths which were similar to a study by Tapisiz et al[6]. Our perinatal mortality rate was 33.3% which is low compared to a study by Rajyashri et al[12] where it was 62.86%.

Conclusion

Obstetric hysterectomy continues to be a life saving procedure in cases of intractable haemorrhage in the immediate post partum period as well as beyond 24 hours in certain cases of massive secondary PPH. The decision to perform hysterectomy has to be made promptly in the presence of severe and ongoing haemorrhage as concern about sacrificing the patient's reproductive potential may eventually lead to her death. It is of utmost importance that these patients are seen in time by senior experienced consultants who are in a better position to take the decision to do the hysterectomy as well as to perform the surgery with minimum morbidity and mortality.

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