

A study of factors associated with post partum haemorrhage and it's management at tertiary health care centre

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Abstract

Background: Postpartum haemorrhage (PPH) is a major cause of maternal morbidity and mortality worldwide. Early diagnosis and management of PPH will improve the outcome of delivery. **Aim and objective:** To study factors associated with development of post partum haemorrhage and its treatment at tertiary health care center. **Methodology:** Patients admitted for PPH were study population. Data collection was done regarding history, clinical examination and investigation. PPH cases managed with medical and surgical interventions. Data analysed with appropriate statistical test. **Results:** Most common risk factor for PPH was pregnancy induced hypertension. Uterine atony was the major cause of PPH 75% cases. Total 62.50% cases responds to medical line of treatment. 12.5% patients required bimanual uterine massage with medical treatment. 18.75% patients required conservative surgical interventions and 6.25% patients required radical surgery.

Key Word: post partum haemorrhage.

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INTRODUCTION

Postpartum Haemorrhage (PPH) is commonly defined as a blood loss of 500 ml or more within 24 hours after birth, while severe PPH is defined as a blood loss of 1000 ml or more within 24 hours after birth. PPH is a significant contributor to severe maternal morbidity and long-term disability as well as to a number of other severe maternal conditions generally associated with more substantial blood loss, including shock and organ dysfunction.¹⁻³ This amounts to one death every minute with an estimated quarter of these deaths occurring as a consequence of

haemorrhage (World Health Organization, WHO, 2007; Millennium Development Goals Report, 2009). Uterine atony is the most common cause of PPH, but genital tract trauma, uterine rupture, retained placental tissue, maternal coagulation disorders, grand multiparity, multiple gestation and pre-existing anaemia are some risk factors associated with PPH.⁴ Early diagnosis is essential to successful management and favourable outcome of labour. The major factor in the adverse outcomes associated with severe haemorrhage is the delay in initiating appropriate management. The treatment of patients with PPH has 2 major components: (1) resuscitation and management of obstetric haemorrhage and hypovolemic shock and (2) identification and management of the underlying cause(s) of the haemorrhage. Successful management of PPH requires consideration of both the components simultaneously.

MATERIAL AND METHODS

Present study is prospective study carried out in tertiary health care centre. Study population was patients admitted for PPH during study period (one year). The study was approved by ethical committee of the hospital.

Patient’s written valid informed consent for the study and operative procedures(if required) was taken.

Inclusion criteria: 1.patient referred from outside for PPH 2. Patients presenting with PPH in OPD.

Exclusion criteria: 1.Patients with history of coagulation disorder². Patients taking heparin andwarfarin.3.Patient who have not given consent for study.

Data collection was done using pretested valid questionnaire. It included clinical history, physical examination and laboratory investigations. Diagnosis of PPH was made clinically based on findings of pelvic examination, condition of uterus and amount of bleeding. Maternal condition was assessed and managed accordingly. Management included pharmacological intervention and surgical intervention.

RESULTS

Total no of deliveries during the study period of one year were 900. 16 cases land up in PPH out of total 900, So the incidence was 1.77

Table 1: Distribution of patients of PPH according to mode of delivery

Sr no	Mode of delivery	%
1	Vaginal delivery	1.84%
2	Instrumental vaginal delivery	6.08%
3	Caeserian section	1.43%

Table 2: Distribution of patients of PPH according to causes

Sr no	Causes	Total	%
1	Atony	12	75%
2	Traumatic	3	18.75%
3	Retained placenta	1	06.25%

Table 3: Distribution of patients of PPH according to treatment modality

Sr no	Treatment	Total cases	%
1	Medical	10	62.50%
2	Medical + Bimanual uterine massage	2	12.5%
3	Surgical Conservative	3	18.75%
4	Surgical Radical	1	6.25%

Mean age of the patient was 25±3.5 years. Incidence of PPH was more in instrumental vaginal delivery like ventuse or forceps (6.08%). It was same in vaginal delivery (1.84%) and caesarean section (1.43%). Most common risk factor for PPH was pregnancy induced hypertension (36.54%) followed by prolonged labour (18.37%). Uterine atony was the most common cause of PPH (75%) followed by prolonged labour (18.75%) and retained placenta (06.25%). The women who delivered by NVD, who were diagnosed with a PPH, and who lost an estimated 500–1,000 mL of blood were 72.3%; 26% lost

1,000–1,500 mL of blood; and 1.7% lost more than 1,500 ml. The women who delivered by lower-segment caesarean section, who were diagnosed with a PPH, and who lost an estimated 1,000–1,500 mL of blood loss were 79.8%, and 20.2% lost 1,500 mL of blood or more. Only one patient died contributing 6.25% of all PPH. Total 62.50% cases responds to medical line of treatment.12.5%patients required bimanual uterine massage with medical treatment.18.75%patients required conservative surgical interventions and 6.25%patients required radical surgery.

DISCUSSION

In present study the incidence of PPH was 1.77%. Similar findings were seen in a study by Lu, MC, Fridman *et al*⁵, where incidence was 2.4% of total deliveries. Our results were comparable with Pranita Solanke *et al*⁶ with incidence of 1.6%.

Incidence of PPH was more in instrumental vaginal delivery(6.08%). It was same in vaginal delivery (1.84%) and caesarean section (1.43%). In Combs *et al*⁷ incidence of PPH with instrumental deliveries is 3%. In Magann *et al*⁸ incidence of PPH with caeserian section is 2.25%. Present study show uterine atony is the major cause of PPH 75% cases. In study by Anderson J *et al*⁹ Uterine atony was the most common (70%) cause of postpartum haemorrhage. Similar findings were observed in a study by Pranita Solanke *et al*⁶ with 79.17%. Oxytocin is an effective first-line treatment for postpartum haemorrhage 10 international units (IU) should be injected intramuscularly, or 20 IU in 1 L of saline may be infused at a rate of 250 ml per hour. As much as 500 ml can be infused over 10 minutes without complications. In present study, oxytocin was required in 45% of cases. In present study, 15 methyl PGF2 alpha was used in 6.45% of postpartum haemorrhage. A study done by Pranita Solanke *et al*⁶

15 methyl PGF2 alpha was used in 5.20% of postpartum haemorrhage. Manual removal of placenta was required in 12.5% of postpartum haemorrhage cases in present study contratory to our finding a study by Carroli G showed 3 percent patients required manual removal of placenta. Out of total 16 patients 4 patients required surgical correction. 3 patients required conservative treatment while one patient required obstetrical hysterectomy. In a study by Yamamoto *et al*¹⁰ only 1 out of 6978 patients required obstetrical hysterectomy.

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