

ORIGINAL ARTICLE

Assessment of cases of postpartum hemorrhage

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ABSTRACT:

Background: Around 23% of maternal deaths globally are attributed to post-partum hemorrhage (PPH), which is also the leading cause of maternal deaths across the Asian continent. The present study was conducted to assess cases of post-partum hemorrhage. **Materials & Methods:** 75 cases of post-partum hemorrhage were selected and clinical characteristics were assessed, including the age of the mother, her past pregnancies, the method of delivery, the main reason for the hemorrhage. PPH risk factors were also noted. **Results:** Age group 20-30 years had 40, 30-40 years had 20 and >40 years had 15 patients. The difference was significant ($P < 0.05$). Gravida was primi in 45, and multigravida in 30. The mode of delivery was vaginal in 43, and LSCS in 32 patients. Risk factors were APH in 22, PIH in 13, atonicity in 8, retained placenta in 12, prolonged labour in 15 and infection in 5 cases. Complications were DIC in 6, anemia in 11, and others in 2 cases. The difference was significant ($P < 0.05$). **Conclusion:** The most frequent risk factors for PPH were PIH, APH, and extended labor. Common complications were DIC and anemia.

Key words: maternal deaths, post-partum hemorrhage, DIC

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This article may be cited as: Bhramaramba SM. Assessment of cases of postpartum hemorrhage. J Adv Med Dent Scie Res 2015;3(1):418-420.

INTRODUCTION

Around 23% of maternal deaths globally are attributed to post-partum hemorrhage (PPH), which is also the leading cause of maternal deaths across the Asian continent. According to multiple studies, post-partum hemorrhage is the most frequent direct cause of maternal mortality and morbidity in India, accounting for 25% of maternal deaths.¹ A woman experiences post-partum hemorrhage if she loses 500 milliliters or more of blood in the 24 hours following delivery. In affluent nations, postpartum hemorrhage is a relatively uncommon cause of maternal death (about 8%). i.e., compared to their developed counterparts, pregnant women giving birth in underdeveloped nations face a higher chance of dying during labor. Thus, it appears that this is a preventable reason for maternal deaths.^{2,3}

Researchers have applied transfusions of ≥ 10 red blood cell (RBC) units within 24 hours, 50% blood volume loss within 3 hours, or transfusions of ≥ 4 RBC units within 1 hour as criteria for MT, despite the fact that there is no universally accepted classification for the condition.⁴ Only in cases where the parturient has lost more than 500 mL or 1000 mL of blood may PPH be diagnosed. The fact that there is

currently no perfect way to determine exactly how much blood has been lost is another barrier to diagnosing PPH.⁵ The most practical way of estimating blood loss is visual estimation, which underestimates blood loss by half. The Hb or HCT method's effects are delayed since severe bleeding may be the source of the blood.⁶ The present study was conducted to assess cases of post-partum hemorrhage.

MATERIALS & METHODS

The present study was conducted on 75 cases of post-partum hemorrhage. All patients were informed regarding the study and their written consent was obtained.

Data such as name, age, etc. was recorded. For every patient, a comprehensive clinical examination was conducted. Clinical characteristics were assessed, including the age of the mother, her past pregnancies, the method of delivery, the main reason for the hemorrhage, the quantity of red cell concentrate units transfused, and the results. PPH risk factors were also noted. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Age group (Years)	Number	P value
21-30	40	0.05
31-40	20	
>40	15	

Table I shows that age group 20-30 years had 40, 30-40 years had 20 and >40 years had 15 patients. The difference was significant ($P < 0.05$).

Table II Assessment of parameters

Parameters	Variables	Number	P value
Gravida	Primi	45	0.02
	Multigravida	30	
Mode of delivery	Vaginal	43	0.05
	LSCS	32	
Risk factors	APH	22	0.03
	PIH	13	
	Atonicity	8	
	Retained placenta	12	
	Prolonged labour	15	
	Infection	5	
Complications	DIC	6	0.05
	Anemia	11	
	Others	2	

Table II shows that gravida was primi in 45, and multigravida in 30. The mode of delivery was vaginal in 43, and LSCS in 32 patients. Risk factors were APH in 22, PIH in 13, atonicity in 8, retained placenta in 12, prolonged labour in 15 and infection in 5 cases. Complications were DIC in 6, anemia in 11, and others in 2 cases. The difference was significant ($P < 0.05$).

DISCUSSION

The mortality rate from postpartum hemorrhage only includes instances that were reported during hospital delivery; policy makers are primarily interested in the hidden or submerged component of the iceberg, which represents total mortality and is the major cause of maternal deaths.^{7,8} Although the majority of pregnant mothers give birth in hospitals or at home with the assistance of trained birth attendants, post-partum hemorrhage is the most common direct cause of maternal deaths. For this reason, active management of the third stage of labor is necessary in all cases.^{9,10} The present study was conducted to assess cases of post-partum hemorrhage.

We found that age group 20-30 years had 40, 30-40 years had 20 and >40 years had 15 patients. In Devi et al.'s investigation¹¹, during a ten-year period, 106 women were found to have MT. Between the first five-year group (2006–2010) and the second five-year group, the MT percentage remained consistent. Placental abnormalities, particularly placenta accreta, showed an increasing tendency in the second 5-year group compared to the first 5-year group (34% vs. 23%, $\chi^2 = 188.26$, $P = 0.03$), even though uterine atony remained the primary cause of MT. Out of all the causes of PPH, placenta accreta had the highest hysterectomy rate (17/24), with twenty-four women (23%) undergoing the procedure. There were no recorded maternal deaths.

We observed that Gravida was primi in 45, and multigravida in 30. The mode of delivery was vaginal in 43, and LSCS in 32 patients. Risk factors were APH in 22, PIH in 13, atonicity in 8, retained placenta in 12, prolonged labour in 15 and infection in 5 cases. Complications were DIC in 6, anemia in 11, and others in 2 cases. 200 cases with a blood loss of 500 ml or more during vaginal delivery and 100 cases with a blood loss of 1000 ml or more with caesarean section were enrolled by Shaikh et al.¹² The most frequent risk factor for postpartum hemorrhage,

observed in 168 (84%) of the pregnant women, was uterine atonicity. APH was observed in 45 (22.5%) pregnant women, whereas PIH was observed in 74 (37%) pregnant women. Thirteen cases (8.5%) of PPH were related to retained placental materials, and twenty-eight (14%), to prolonged labor. Thirteen (6.5%) occurrences of PPH were related to genital tract injuries, while fourteen (7%) pregnant women experienced large baby-induced PPH. Nine (4.5%) pregnant women experienced PPH as a result of a ruptured uterus, and nine (4.5%) of these cases were related to multiparity. Five instances (2.5%) of PPH were attributed to infections, and two cases (1%), to uterine inversion.

CONCLUSION

Authors found that the most frequent risk factors for PPH were PIH, APH, and extended labor. Common complications were DIC and anemia.

REFERENCES

- Royal College of Obstetricians and Gynaecologists. Postpartum haemorrhage, prevention and management (Green-top 52). London: RCOG; 2009.
- Carroli G., Cuesta C., Abalos E., Gulmezoglu A.M. Epidemiology of postpartum haemorrhage: a systematic review. *Best Pract Res Clin ObstetGynaecol.* 2008;22:999–1012.
- RCOG. 2009. RCOG Green-top Guideline No 52: prevention and management of postpartum haemorrhage. updated 2011.
- Bose P., Regan F., Paterson-Brown S. Improving the accuracy of estimated blood loss at obstetric haemorrhage using clinical reconstructions. *BJOG: Int J ObstetGynaecol.* 2006;113:919–924.
- Stafford I., Dildy G.A., Clark S.L., Belfort M.A. Visually estimated and calculated blood loss in vaginal and cesarean delivery. *Am J Obstet Gynecol.* 2008;199:519.e1–519.e7.
- Schorn M.N. Measurement of blood loss: review of the literature. *J Midwifery Women's Health.* 2010;55:20–27.

7. Knight M, Callaghan WM, Berg C, Alexander S, Bouvier-Colle MH, Ford JB, et al. Trends in postpartum hemorrhage in high resource countries: A review and recommendations from the International Postpartum Hemorrhage Collaborative Group. *BMC Pregnancy Childbirth* 2009;9:55
8. Mhyre JM, Shilkrut A, Kuklina EV, Callaghan WM, Creanga AA, Kaminsky S, et al. Massive blood transfusion during hospitalization for delivery in New York State, 1998-2007. *ObstetGynecol*2013;122:1288-94.
9. Levi M, Fries D, Gombotz H, van der Linden P, Nascimento B, Callum JL, et al. Prevention and treatment of coagulopathy in patients receiving massive transfusions. *Vox Sang* 2011;101:154-74.
10. Tasneem F, Sirsam S, Shanbhag V. Clinical study of post- partum haemorrhage from a teaching hospital in. *2013;6(6):2366-9.*
11. Devi KP, Singh LR, Singh LB, Singh MR, Singh NN, Devi KP. Postpartum Hemorrhage and Maternal Deaths in North East India. *Open J Obstet Gynecol.* 2000;5(5):635-8.
12. Shaikh, Shabnam; Shaikh, Najma Bano; Talpur, Sabreena; Balouch R. Postpartum Hemorrhage: An Experience at Tertiary Care Hospital, Hyderabad. *Med Channel.* 2013;19(1):44-7.