

EDITORIAL

CAUSES AND INCIDENCE RATE OF POSTPARTUM HEMORRHAGE AT KASSALA NEW HOSPITAL, SUDAN

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INTRODUCTION

Postpartum hemorrhage (PPH) is one of the top five causes of maternal mortality in both high income and low income countries, although the absolute risk of death is much lower in the former than the latter (1 in 100,000 versus 1 in 1000 births)⁽¹⁾.

The incidence of PPH varies widely, depending upon the criteria used to define the disorder. A reasonable estimate is 1 to 5 percent of deliveries^(1,2).

The WHO estimate that obstetric hemorrhage complicates 10.55 of all live births in the world (13 795 000 women experiencing this problem in 2000) and 28% of all direct maternal deaths due to hemorrhage (132000 maternal deaths)⁽³⁾.

The most common definition of PPH is estimated blood loss 500 mL after vaginal birth or 1000 mL after cesarean delivery⁽⁴⁾. The inadequacy of this definition was illustrated in studies that assessed blood loss using various objective methods: the mean blood loss reported after vaginal and cesarean deliveries was approximately 400 to 600 mL and 1000 mL, respectively, and clinicians were more likely to underestimate than overestimate the volume of blood lost^(4,5).

The risk of dying from postpartum hemorrhage depends not only on amount of blood loss but poverty, woman's lack decision making, lifestyle and malnutrition are another contributing factors⁽⁶⁾. One of the problems that facing the research is how to measure postpartum hemorrhage with accuracy since there is lacking of accurate and gold standard method. The common errors and remedies in managing postpartum hemorrhage include failure to treat anemia in pregnancy, and delay in recognition, substandard care and lack of skills⁽⁷⁾.

According to Sudan Household Health Survey (SHHS 2006), Kassala State has high maternal mortality reaching more than one thousand per 100000 live birth. The main complications during labour and delivery include prolonged labour (31.1 per cent), high fever (30.9 per cent), excessive bleeding (22 per cent) and convulsions (10.2 per cent). PPH in Kassala State accounted 7.0 %.⁽⁸⁾

In order to provide the policy makers with evidence-based data we aim to investigate the causes of postpartum hemorrhage, to determine the incidence rate and risk factors and to evaluate the outcome of management of patients presented with or developed postpartum hemorrhage at Kassala New Hospital over one year duration (1st Oct.2007 -30th Nov.2008).

METHODOLOGY

This is a prospective cross-sectional hospital based studies carried out at Kassala New hospital (KNH) in the period between 1st Oct.2007 to 30th Nov.2008. KNH is a referral Obstetrical and Gynecological hospital receiving and managing all obstetrical cases from Kassala State.

In this study postpartum hemorrhage defined as any vaginal bleeding that occurs after delivery and

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deviate the attention of health care attendants for immediate action.

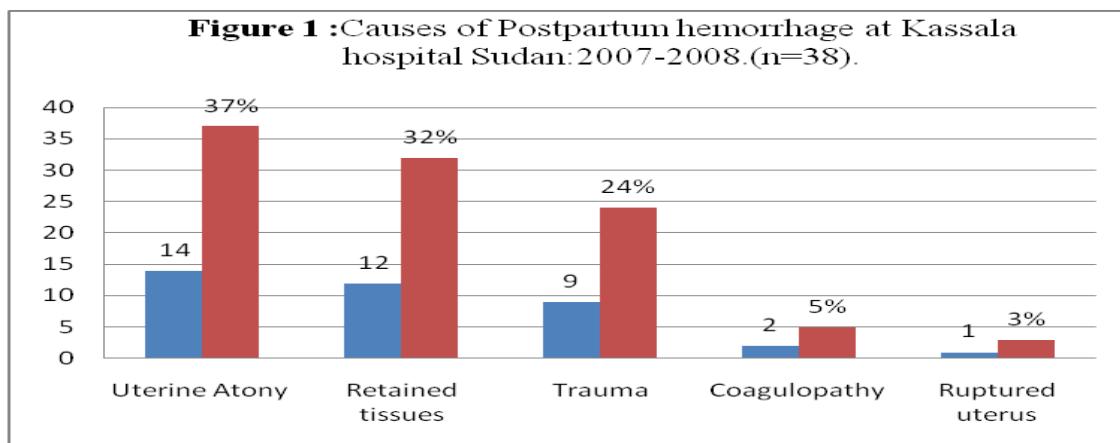
All the patients who developed or brought to the hospital with postpartum hemorrhage or shock were interviewed and the information considering their age, educational level, residence, type and cause of postpartum hemorrhage and risk factors were analyzed, the literature reviewed to compare the results with similar studies.

The ethical clearance was obtained from the Research Board at Kassala State ethical Committee.

RESULTS

In the study there were 38 cases of postpartum hemorrhage, 21 cases were hospital deliveries and 17 were home deliveries out of 4422 deliveries yielding an incidence rate of 0.5%. The majority were primary postpartum hemorrhage (84.2%). The peak incidence was in 30 – 34years age group while there is equal numbers of patients coming from rural and urban area the majority were illiterate (65%) and unbooked (63.2%). 44.7% were multiparous (para 1-4), 39.5 grandmultiparous, 73.7% delivered vaginally, 21.1 % by caesarean section and 5.2% by vacuum extractor.

The major cause of postpartum hemorrhage is uterine atony (36.85) table 1, followed by retained placenta (31.6%), birth canal trauma (23.7%), coagulopathy (5.26%) and ruptured uterus (2.64%).(Figure 1)



While risk factors are absent in 47.4% of all cases (18 out of 38 cases), grandmultiparity and operative delivery might have a role in development of postpartum hemorrhage in this study, table 1.

Other risk factor among the studied group were prolonge labour 11 %, overdistension of the uterus 11%, , and others were 14 %.

Although all patients received oxytocic drugs, 65.8% required blood transfusion, only 7.6% undergone subtotal abdominal hysterectomy and in similar percentage B-lench was carried out. There is one case of maternal death with 2.6% case fatality rate.

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Table1: Risk Factors of Postpartum Hemorrhage at Kassala New hospital: 2007-2008. (n=38).

Maternal and Perinatal outcomes	Number	Percentage
No risk factors	18	47
Grandmultiparity	15	40
Operative delivery	11	29
Prolonged labor	4	11
Overdistension	4	11
Anticoagulant therapy	2	5
Infection	1	3
Preterm labor	1	3
History of PPH	1	3

DISCUSSION

Postpartum hemorrhage is still a health problem in this hospital and while it is responsible for most of the direct causes of maternal death all over the world⁽⁸⁾.The case fatality rate in this study (2.6%) is not that high despite the high maternal mortality in Kassala state according to Sudan household health survey 2006.

Uterine atony is the common cause of the primary postpartum hemorrhage and this consistent with other results in the developing countries where it is reported in 70% of the cases⁽⁹⁾ . It occurs in 7 out of 8 cases delivered by caesarean section who anaesthetized generally . Uterine atony successfully could be resolved by active management of third stage of labor which is not a routine practice in our hospital and this goes with what had been reported from similar situation for example in Tanzania where Mfinanga GS et al

found that the knowledge and practice of active management of third stage of labor is very low and standard treatment guidelines is not updated⁽¹⁰⁾.

In our study nearly half of the patients had no risk factors which is inconsistent with different results that reported advanced maternal age, grandmultiparity, anemia as major risk factors ^(11,12). Although it is much more difficult to find comparable studies of risk factors it is surprisingly coagulopathy responsible for 5.26% of the cases in whom anticoagulants therapy is secondary cause, and this result is higher than what is written in the literature (1%) ⁽¹³⁾.

Another interventions like uterine tamponade and uterine artery and anterior branch or internal iliac arteries ligation possible and applicable could reduce this percentage of hysterectomy.

Conclusion:

Postpartum hemorrhage is still maternal health problem in our hospital, uterine atony is the major cause of postpartum hemorrhage, one fifth of the patients delivered by caesarean section and nearly half of the patients showed no risk factors. We recommended active management of third stage of labor for all patients .

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