Postpartum Haemorrhage in a Secondary Level Health Care Centre in Kebbi State, Nigeria

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Abstract
Background: Postpartum haemorrhage [PPH] is a major cause of maternal morbidity and mortality in Nigeria. Some women are at greater risk of postpartum haemorrhage than others. Obstetric care is provided at three levels of care in Nigeria; primary, secondary and tertiary (specialist care) levels, with substantial difference in quality between the levels.
Objectives: The objective of the study was to record the pattern of presentation and the mode of management of the patients with PPH in a secondary-level health care delivery centre.
Method: The records of patients seen with PPH over a three-year period from January 2004 to December 2006 at a government general hospital in Northwestern Nigeria were retrieved to extract information about the socio-demographic and clinical attributes of the patients, including the mode of management of their clinical problems.
Result: During the period, 55 patients were managed for postpartum haemorrhage; 45 for primary PPH and 10 for secondary PPH. They all received uterotonic agaents and blood transfusion in the course of management.
Conclusion: Early presentation, prompt management, and availability of uterotonic agents and blood transfusion services are necessary in the management of postpartum haemorrhage as delay in prompt management leads to avoidable maternal deaths.
Key Words: Haemorrhage, Childbirth, Blood Transfusion

Introduction
Postpartum haemorrhage is one of the top five causes of maternal mortality in both developed and developing countries [1]. Obstetric haemorrhage is the world's leading cause of maternal mortality. Postpartum haemorrhage is the most common type of obstetric haemorrhage and accounts for the majority of cases that occur each year [2].

Some half a million women die annually across the world from causes related to pregnancy and childbirth. Approximately one quarter of these deaths are caused by complications of the third stage of labour [1].

The World Health Organization definition of primary postpartum haemorrhage is the loss of 500mls, or more, of blood from the genital tract within 24 hours of giving birth [3.] The normal amount of blood loss is difficult to ascertain because different ways of managing the third stage and assessing the blood loss leads to markedly different inferences. It is well demonstrated that active management of the third stage of labour is associated with less blood loss. A blood loss up to 500mls at delivery is regarded as “physiologically normal” [1]. It is part of the normal mechanism that brings the mother's blood parameters to their normal non-pregnant levels and healthy pregnant women can cope with it without difficult.

The uterus is composed of a unique interlacing network of muscle fibres known as myometrium. The blood vessels that supply the placental bed pass through this latticework of uterine muscle [1]. Myometrial contraction is the main driving force

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for both placental separation and haemostasis through occlusion and constriction. About 3% to 4% of all women in different populations still have 1000mls or more blood loss after delivery, even in high-income countries. Severe postpartum haemorrhage is still the most preventable obstetric morbidity [4].

Although postpartum haemorrhage can occur during any delivery, the risk is increased in certain women. Failure of the uterus to contract and retract adequately after childbirth is the most common cause of postpartum haemorrhage. Patients at risk are those with large or over distended uterus, abnormality of placental insertion (abruptio placenta or placenta praevia), previous postpartum haemorrhage, and obesity. Other aetiological factors include retained parts of the placenta and vaginal and cervical tears. Uterine rupture, clotting disorder, and uterine inversion are extremely rare but often very dramatic causes of heavy uterine bleeding [4].

Prompt and competent management can avert maternal death in most cases but this is often not available at primary and secondary-level health care facilities. This study was conducted to document the pattern of presentation of PPH in one secondary-level care facility in a part of Nigeria where the maternal mortality ratio has been recorded to be quite high, and to appraise how effective the modalities used for treatment were

Materials and Methods

This was a three-year retrospective study at General Hospital Aliero located in Kebi State, Northwestern Nigeria. The register at the maternity unit was obtained and the clinical case records of all patients managed for postpartum haemorrhage between January 2004 and December 2006 were retrieved for analysis. All the patients in this study presented as emergencies and had given birth at home, because women in the area usually engaged the services of traditional birth attendants and preferred to deliver their babies at home.

The protocol for management during the period required a prompt physical examination at the time of presentation and a quick summary assessment of the patients' clinical condition. Urgent haemoglobin level, grouping, and cross matching of blood were done. Blood product concentrate was not available at the centre. The patients were resuscitated; oxytocin infusion set up and those who required blood transfusion received it. The extent of compliance with the protocol was appraised

Results

During the three year study period, 55 women were managed for postpartum haemorrhage; 45(81.8%) patients for primary PPH and 10(18.2%) patients for secondary PPH. Twenty patients (36.4%) were nulliparous while 35(63.6%) patients were multiparous. All patients had singleton pregnancies and received blood transfusion in the course of management. Five patients were in shock at the time of presentation. The other 50 patients, while suffering from various stages of haemodynamic derangements, were conscious and not in shock. All the patients were treated as the hospital protocol required, with all of them receiving blood transfusion.

There was no mortality as all 55 patients recovered and went home in good condition. They were counselled on antenatal care and delivery conducted by trained staff in standard healthcare facilities in subsequent pregnancies.

Discussion

To tackle and prevent the morbidity and mortality associated with postpartum haemorrhage, there is a need to anticipate it and actively manage the third stage of labour. All patients in this study had home deliveries and the third stage of labour was not actively managed. None of them had any form of antenatal care in a proper health facility.

Successful management of postpartum haemorrhage relies on early diagnosis; resuscitation and arrest of haemorrhage where there is an identifiable cause. The aim should be to preserve life. The patients' bladder should be emptied and the placenta and remaining membranes manually removed. If need be, bleeding points along the birth canal are sutured.

Major primary postpartum haemorrhage continues to top the list of causes of maternal mortality worldwide [5]. The situation is worse in developing countries where more deaths are reported due to poor facilities, lack of manpower and delay in seeking expert management. Traditionally, primary postpartum haemorrhage is defined as bleeding from the genital tract of 500mls or more in the first 24 hours following delivery of the baby[1]. The most important consequence includes hypovolaemia, shock, disseminated intravascular coagulation, renal failure, heart failure, and adult respiratory distress syndrome. The clinical state of the patient rather the amount of blood loss should guide the clinician to the urgency of resuscitation. The first priority is to rapidly correct hypovolaemia with crystalloids.

Every woman in labour is at risk of developing postpartum haemorrhage. Delay in the correction of hypovolaemia, diagnosis and treatment of bleeding disorders and initiation of surgery are preventable factors responsible for majority of death [5]. There was no mortality in this study, which is remarkable, considering that five of the patients were in shock at the time of admission. There is the risk of complications of blood transfusion especially transmission of diseases though all the blood given to patients were screened.

Active management of the third stage of labour by the use of uterotonics, early cord clamping and active efforts to deliver the placenta decreases blood loss during the third stage of labour. Prevention as a strategy is better than dealing with full blown haemorrhage which may require blood transfusion and the use of other blood products which may not be available, particularly at lower levels of care.. There is also the risk of transmission of blood borne diseases during blood transfusion.

The findings demonstrate that even in a secondary care level facility, adherence to standard protocols of care can yield desirable outcome in the management of patients with postpartum haemorrhage. It is important to provide such clear protocols of emergency obstetric care to health workers at all levels of care to reduce maternal mortality ratios in Nigeria and other developing countries.

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