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Review Article

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Postpartum haemorrhage among women delivering through spontaneous vaginal delivery: Prevalence and risk factors

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Abstract

Postpartum haemorrhage (PPH) is the most common cause of maternal mortality in the majority of low-income countries, affecting 2–11% of all women who give birth globallyand accounting for nearly 25% of all maternal deaths worldwide. Postpartum haemorrhage is highly prevalent. Cesarean section delivery, multiple pregnancies, fetal macrosomia 4000 g, and HIV positive sero-status are risk factors for postpartum hemorrhage. Other intrapartum risks for PPH include labor lasting longer than 12 hours, emergency caesarean sections, retained placentas, episiotomies, baby weight greater than 4 kg, and maternal pyrexia during labor. These women could be located so that sufficient staff and resources could be mobilized in case labor-related bleeding turned out to be severe.

Keywords: Postpartum hemorrhage, PPH, women, delivery, prevalence, risk factors

Introduction

Postpartum hemorrhage (PPH) is the most common cause of maternal mortality in the majority of low-income countries, affecting 2–11% of all women who give birth globally [1] and accounting for nearly 25% of all maternal deaths worldwide [2]. PPH significantly increases the risk of severe maternal morbidity, including long-term disability, as well as a number of other severe maternal conditions, such as shock and organ dysfunction, which are typically linked to greater amounts of blood loss [3]. From 2.55 percent in Asia to 10.45 percent in Africa, PPH 500 ml prevalence was found [4]. Additionally, the prevalence of primary and secondary PPH is roughly 6 percent and 1 point 86 percent of all deliveries, respectively [5]. In Uganda, the prevalence of postpartum hemorrhage overall was

90%, and the prevalence of severe postpartum hemorrhage (1000 ml or more) was 12% [6].

According to international studies, induction of labor (IOL) occurs in about 20–25 percent of pregnancies on average right now, and it's a common practice when the mother requests it [7]. The average rate of labor induction is only 4 percent, with a range of 1 to 6 percent [8]. Induction rates are low in the African region. Data on labor induction rates in Uganda are currently scarce, but one study reports rates of 2.5% [8].

Cesarean section delivery, multiple pregnancies, fetal macrosomia 4000 g, and HIV positive sero-status were risk factors for postpartum hemorrhage in a study conducted in Uganda [6]. Other intrapartum risks for PPH include labor lasting longer than 12 hours, emergency caesarean sections, retained placentas, episiotomies, baby weight greater than 4 kg, and maternal pyrexia during labor. Currently no study documents the associated risk factors for PPH in labor induction in Uganda and yet the Prevalence of postpartum hemorrhage is high despite use of uterotonics during active management of third stage of labor [6].

Given the lack of information on the prevalence of PPH after labor induction and the disagreement over potential risk factors or causes of PPH in IOL, there is still a need to determine the prevalence of PPH in induced labor and the associated risk factors for PPH in these mothers.

Maternal postpartum bleeding

Maternal postpartum hemorrhage, which is defined as cumulative blood loss of more than or equal to 1,000 mL or blood loss accompanied by signs or symptoms of hypovolemia within 24 hours of the birth process [10], is still the leading cause of maternal mortality in the world. Other significant secondary sequelae from hemorrhage include adult respiratory distress syndrome, shock, disseminated intravascular coagulation, acute renal failure, loss of fertility, and anemia. Nearly one-quarter of all maternal deaths worldwide are linked to PPH, which is also the main cause of maternal mortality in the majority of low-income countries [12]. This problem is exacerbated in developing nations, where a woman's lifetime risk of dying from pregnancy or childbirth is approximately one in six [13].

Postpartum haemorrhage frequency

Postpartum haemorrhage, which has a reported prevalence of 2–11 percent [14], is one of the leading causes of maternal mortality worldwide. The precise rates may vary depending on the data source, the nation, and the assessment technique, with a worldwide prevalence of 10.6 percent when measured by an objective assessment of blood loss and 7.2 percent when measured by subjective techniques [15]. A systematic review found that PPH prevalence with less than 500 ml of blood loss was 10 percent in Africa, 8 percent in Latin America and the Caribbean, 6 percent in North America and Europe, and 2 percent in Asia. However, a second systematic review found slightly higher prevalence rates with similar regional variation: 26 percent in Africa, 13 percent in North America and Europe, and 8 percent in Latin America and Asia [16]. Postpartum hemorrhage was prevalent overall in Uganda (90%), and severe postpartum haemorrhage (1000 ml or more) was 12% prevalent. Worldwide, induction rates of labor are on the rise, especially for non-medical or social factors like convenience or being past a "due date," and many women are consenting to inductions of labor without being informed they are at higher risk of postpartum hemorrhage (PPH) after the birth [17]. According to international studies, induction rates of labor are typically between 20 and 25 percent of all pregnancies worldwide [18]. Induction rates for workers are extremely low in Africa, with an average of 4.4% and a range of 1.4-6.8%, with Algeria having the highest induction rate (6 point 8 percent) and Niger having the lowest (1 point 4 percent). According to one study [19], the rate is currently 2.5% in Uganda. The recommendation for labor induction to achieve the sustainable development goals (SDGs) [20] is expected to cause an increase in these rates.

Risk factors for postpartum haemorrhage

PPH is frequently sudden, life-threatening, unpredictable, and relatively common, so managing it always calls for a high index of suspicion [11]. In addition to the information mentioned above that links labor induction to the development of PPH, a number of other risk factors have been identified and are detailed below.

The following antenatal risk factors are present in this pregnancy: Antepartum hemorrhage; Placenta praevia (increases risk by 12 times); Suspected or confirmed placental abruption; Multiple pregnancy (increases risk by 5 times); Overextended uterus (polyhydramnios or macrosomia); Pre-eclampsia or pregnancy-induced hypertension (4 times risk); Grand multiparity (four or more pregnancies [21].

Induction of labor (twice risk), labor lasting longer than 12 hours (twice risk), emergency cesarean section (four times risk), retained placenta (five times risk), episiotomy (five times risk), baby weight greater than 4 kg (twice risk), and maternal pyrexia during labor (twice risk) are all intrapartum risk factors [21-39].

In addition to these dangers, obesity, genital tract tears, and pre-existing coagulopathies are also present [11]. According to a study conducted in Uganda by Ononge and colleagues, multiple pregnancies, foetal macrosomia 4000 g, and HIV positive sero-status were all risk factors for PPH [6].

Conclusion

Postpartum haemorrhage is highly prevalent. Multiple pregnancies and a history of PPH are the biggest risk factors for the condition. These women could be located so that sufficient staff and resources could be mobilized in case labor-related bleeding turned out to be severe.

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