CHALLENGING CASE OF POSTPARTUM HEMORRHAGE -  
A CASE REPORT

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Abstract
Post partum hemorrhage (PPH) is an important cause of maternal mortality accounting for nearly 25% of maternal deaths worldwide. Atonic PPH is the most common cause of PPH. PPH is a preventable condition. Third stage of labour is indeed a unforgiving stage of labour where normal case can become abnormal within a minute and successful delivery can turn into a disaster. This paper represent a case of atonic PPH as well as literature review.

Keywords: Postpartum hemorrhage, uterine atonicity, peripartum hysterectomy.

Introduction
Postpartum hemorrhage (PPH) is still the most common direct cause of maternal death in the world. Most of the PPH cases might be having predisposing factors like anaemia, overdistended uterus, grand multiparity, multiple pregnancy, antepartum hemorrhage and prolonged pregnancy. But even without any predisposing factors severe hemorrhage can lead to sudden unexpected deterioration in maternal condition, which needs immediate attention, hospitalization and institution of active measures to control bleeding by medical, mechanical, invasive, non-surgical and surgical interventions. Most cases of maternal morbidity and mortality due to PPH occur in first 24 hours following delivery (primary PPH); occurrence of PPH between 24 hours to 12 weeks is regarded as secondary PPH. Effective treatment of PPH needs simultaneous multi-disciplinary interventions. Health care provider needs to begin immediate resuscitative efforts, evaluate the cause of the hemorrhage to take help of other care providers such as obstetricians, anaesthetists and radiologists. Avoiding delay in diagnosis and treatment will have significant impact on sequelae and chance of survival.

Case Report
Mrs. X, 25 years Gravida 2, Para 1 Live 1 with history of term gestation was admitted in active phase of labour. Previous pregnancy and present pregnancy antenatal period were uneventful.
Clinical findings and treatment

On admission, that is, at zero hour, general condition and vitals were stable. Uterus was full term with strong uterine contractions and head was engaged, fetal heart rate was good. Vaginal examination revealed cervix 60% effaced, os 5 cm dilated and head at minus three station. Examination of other systems revealed no abnormal signs. Her haemoglobin (Hb%) was 13.2 g/dL and platelet 2,43,000/mm. Patient delivered ten minutes after full dilatation. No history of prolonged third stage of labour. After placental delivery, sustained cervical traction was given for 90 seconds and blood loss during third stage of labor was 200 ml. Patient was under observation and after one hour of delivery, patient started bleeding per vagina and the uterus was found to be flabby and atonic. She was given intravenous crystalloids with 40 units oxytocin infusion, and manual uterine massage. However, she still continued to bleed; intravenous carboprost 250 mg and per rectal misoprostol 800 mg was also given. Simultaneously, the vagina and cervix was explored and no tear was found. By end of first hour, the patient lost about 600–800 mL blood and was started packed red cells transfusion. By the end of second hour, these uterotonics were unsuccessful in achieving adequate uterine tone and a foley's catheter was inserted into the cavity. This allowed the anaesthetist to stabilise the patient before surgery. At laparotomy, the uterus was pale, flabby and revealed no injury. Modified B-Lynch and uterine artery ligation were performed. Inspite of above conservative surgical methods and blood being transfused, patient was still bleeding profusely and became hemodynamically unstable hence hysterectomy was proceeded without any delay in decision making to avoid life threatening complication like disseminated coagulopathy. Total estimated blood loss was 6 litres and the patient received 8 units of packed red cells, 4 platelets and 4 fresh frozen plasma. The patient was shifted to intensive care unit. Patient was haemodynamically stable and sutures were removed on 10th post-operative day. Patient was discharged. She came for follow-up after 2 weeks and she was doing well.

Discussion

PPH is a leading cause of death and morbidity relating to pregnancy. (1) Causes of postpartum hemorrhage are uterine atony, trauma, retained placenta, and coagulopathy. (2) Uterine atony is the leading cause of PPH. Women with PPH in a pregnancy are at increased risk of PPH in a subsequent pregnancies. Risk factors leading to increased risk of PPH are:

• Emergency Caesarean section (CS) (9 times risk)(3)
• Elective CS (4 times risk) - especially if >3 repeat procedures(4)
• Retained placenta (5 times risk)
• Medio-lateral episiotomy (5 times risk)
• Operative vaginal delivery (2 times risk)
• Labour of >12 hours (2 times risk)
• >4 kg baby (2 times risk)
• Maternal pyrexia in labour (2 times risk)

If pharmacological measures fail to control the haemorrhage, one should resort to early surgery:
• Bilateral ligation of the uterine arteries or bilateral ligation of the internal iliac (hypogastric) arteries.
• An alternative to ligation is embolisation with gelatin sponge.(5) Amenorrhoea has been reported following this, secondary to necrosis of the uterine wall and obliteration of the cavity.(6)
• Uterine bracing suture to the anterior and posterior uterine walls has been shown to be effective and safe(7) with reports of successful pregnancy following its use.(8,9)

Hysterectomy should be considered early, especially in cases of placenta accreta or uterine rupture.

**Summary**

According to WHO, every minute around the world, 380 women become pregnant, 190 women face unplanned or unwanted pregnancies, 110 women experience pregnancy related complications, 40 women have unsafe abortions and 1 woman dies. Postpartum hemorrhage accounts for 34% and 31% of maternal death in Africa and Asia respectively. Awareness of these facts, and anticipation and prevention of uterine atony, as well as avoiding unnecessary cesareans, episiotomies, and other genital tract trauma have the potential to significantly reduce the mortality and morbidity from postpartum hemorrhage.(10) Want of a male child is still forcing some people to undergo unnecessary procedures like cesareans leading to complicated outcomes. Following two child norm, female and male equality, and education of females will go a long way in decreasing complications like PPH.

**References**


