Primary Postpartum Hemorrhage with Retrospective Study During 2007

Essay

Submitted for Fulfillment of the M.Sc degree ***in Obstetrics & Gynecology***

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2012

قَالُوا سُبْحَانَكَ لاَ عِلْمَ لَنَا إِلاَّ مَا
عَلَّمْتَنَا إِنَّكَ أَنتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

سورة البقرة آية (٣٢)

Abstract

Postpartum hemorrhage is an acute life threatening condition, immediate management is life saving. Medical treatment with uterotonics and surgical correction of bleeding, replacement of plasma component to reverse coagulopathy and red cell transfusion to maintain tissue oxygenation are the basic aims of management of Primary Postpartum Hemorrhage this is followed by retrospective Study During 2007.

Key Words:

Primary postpartum hemorrhage / active and expectant management of the third stage of labour / blood loss / ICU/ maternal morbidity and mortality / Hysterectomy.

Acknowledgement

Firstly and lastly thanks to **Allah** *the most merciful for his help. I would like to express my deepest gratitude and sincere appreciation to*

Prof. Dr. Mohammed Salem Ahmed Rida *Professor of Obstetrics & Gynecology Faculty of Medicine, Cairo University to whom I'm indebted for his help in choosing the subject of this thesis. I'm greatly thankful to him for his fatherly attitude, enthusiastic encouragement, his sincere advice, and supervision. He was very generous with his time and effort.*

Also I would like to thank **Dr Ahmed Abdel Mageed Abd Allah** *Lecturer in obstetrics and gynecology Faculty of Medicine-Cairo University, who was very generous with his time and advice, which helped to simplify my hard task of preparing this work. Also for his sincere supervision and the endless effort that he had offered throughout the period of making and revising this thesis.*

Also I would like to thank the staff of the Kasr El Aini archive department, who helped me perform the technical aspect of this work, and also for giving me the proper assistance, and opportunity to use their the facilities. I'm grateful to all my professors, staff and colleagues of the Obstetrics & Gynecology department Cairo University for their help and cooperation throughout this work. Many grateful thanks to my parents whom without their continuing love, care and strong support I would not be who or where I'm today. My hasband who also stood by my side through all, and who's belief in me continues to provide me with aim and direction.

Mona Mahmoud Mohammed Abozeid

Contents

List of Abbreviations

AFE	:	Amniotic fluid embolism.
AIDS	:	Acquired immunodeficiency syndrome.
APH	:	Antepartum hemorrhage.
BP	:	Blood pressure.
CI	:	Confidence interval.
CS	:	Caesarean section.
DIC	:	Disseminated intravascular coagulation.
dl	:	Deciliter.
DVT/PE	:	Deep vein thrombosis/pulmonary embolism.
FFP	:	Fresh frozen plasma.
FIGO	:	International Federation of Gynecology and Obstetrics.
g	:	Grams.
HELLP	:	Hemolysis, elevated liver enzymes, and low platelets.
HIV	:	Human immunodeficiency virus.
ICU	:	Intensive care unit.
IM	:	Intramuscular.
IMM	:	Intramyometrially.
ITP	:	Idiopathic thrombocytopenic purpura.
IU	:	International units.
IUD	:	Intrauterine death.
IV	:	Intravenous.
kg	:	Kilogram.
L	:	Litres.
mcg	:	Micro gram.
ml	:	Milliliter.
mm3	:	Cubic millimeters.
MPA	:	Misoprostolic acid
NSAID	:	Non-steroidal anti-inflammatory drug.
PET	:	Preeclamptic toxemia.

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Introduction

Postpartum hemorrhage (PPH) is the leading cause of maternal mortality. All women who carry a pregnancy beyond 20 weeks‘ gestation are at risk for PPH and its sequelae. Although maternal mortality rates have declined greatly in the developed world, PPH remains a leading cause of maternal mortality elsewhere **(John Smith & Ronald et al., 2012)**.

Postpartum hemorrhage, the loss of more than 500 mL of blood after delivery, occurs in up to 18 percent of births and is the most common maternal morbidity in developed countries. Although risk factors and preventive strategies are clearly documented, not all cases are expected or avoidable **ACOG Committee Opinion 2007)**

Etiology PPH has many potential causes, but the most common, by a wide margin, is uterine atony, ie, failure of the uterus to contract and retract following delivery of the baby. PPH in a previous pregnancy is a major risk factor and every effort should be made to determine its severity and cause. In a recent randomized trial in the United States, birthweight, labor induction and augmentation, chorioamnionitis, magnesium sulfate use, and previous PPH were all positively associated with increased risk of PPH. **(John Smith & Ronald et al., 2012)**.

Risk factors for postpartum hemorrhage include a prolonged third stage of labour, multiple delivery, episiotomy, fetal macrosomia, and history of postpartum hemorrhage. However, postpartum hemorrhage also occurs in women with no risk factors, so physicians must be prepared to manage this condition at every delivery. Strategies for minimizing the effects of postpartum hemorrhage include identifying and correcting anemia before delivery, being aware of the mother's beliefs about blood transfusions, and eliminating routine episiotomy. Reexamination of the patient's vital signs and vaginal flow before leaving the delivery area may help detect slow, steady bleeding **(Anderson and Etches.,2007)**.

Complication from postpartum hemorrhage include orthostatic hypotension, anemia, and fatigue, which may make maternal care of the newborn more difficult. Post-partum anemia increases the risk of post-partum depression. Blood transfusion may be necessary and carries associated risks. In the most severe cases, hemorrhagic shock may lead to anterior pituitary ischemia with delay or failure of lactation (i.e., postpartum pituitary necrosis). Occult myocardial ischemia, dilutional coagulopathy, and death also may occur. Delayed postpartum hemorrhage, bleeding after 24 hours as a result of sloughing of the placental eschar or retained placental fragments, also can occur. **(John R Smith & Ronald et al., 2012)**.

Thefirst-line treatment of postpartum hemorrhage includes the administration of uterotonics. If these agents fail to stop contractions and bleeding, a tamponade can be effective. If the tamponade does not provide an adequate response, physicians should perform an exploratory laparotomy (a midline vertical incision to the abdomen is preferred because it provides the best possible exposure). There are several methods for controlling continued bleeding, including uterine curettage, uterine artery ligation, **BLynchsuture**, hypogastric artery ligation, rupture repair, and hysterectomy **(Janice & Duncan Etches,A F P. 2007)**

 future fertility, uterus-conserving treatments include uterine packing or tamponade procedures, B-lynch uterine compression sutures, artery ligation, and uterine artery embolization **(Janice & Duncan Etches,A F P. 2007)**

Aim of the work

To review what has been published about post partum haemorrahge conserning aetiology, diagnosis, prevention and management. Special attention will be given to recent advances in the treatment,e.g, use of misoprostol, the **BLynch** surgical technique and **Hayman** modifications for this technique, stepwise devascularisation and arteraial embolotherapy, also to decrease the incidence of primary post partum hemorrhage. This is followed by retrospective study of primary post partum haemorrhage during 2007 in emergency department in kaser El-Aini hospital.

Definition Etiology and Risk Factors

Primary postpartum hemorrhage

Primary postpartum haemorrhage (PPH) is loss of blood estimated to be >500 ml, from the genital tract, within 24 hours of delivery (the most common obstetric haemorrhage).

- Minor PPH is estimated blood loss of up to 1000mls.
- Major PPH is any estimated blood loss over 1000 mls **(Rogers., Wood. et al., 2012)**

Traditionally, primary postpartum hemorrhage (PPH) is defined as bleedingfrom the genital tract of 500 ml or more in the first 24 hours following the delivery of the baby. Alternative cut-off levels of 600ml, 1000 ml, 1500 ml,and a substantial fall in the haematocrit or the need for blood transfusion have also been suggested.

Under estimation of blood loss following delivery is a common problem. The diagnosis is usually made subjectively and many cases remain undetected. Primary PPH with a loss greater than 1000 ml occurs in one to five percent of vaginal deliveries in high-income countries **(Mousa & Alfirevic, 2007).**

Blood loss exceeding 1,000 ml is considered physiologically significant and can result in hemodynamic instability. Even with appropriate management, approximately 3 percent of vaginal deliveries will result in severe postpartum hemorrhage. It is the most common maternal morbidity in developed countries and a major cause of death worldwide **(Anderson and Etches., 2007)**.

Aetiology

Postpartum hemorrhage is the consequence of excessive bleeding from the placental implantation site, trauma to the genital tract and adjacent structures, or both **Table (1)** uterine atony, degrees of retained placenta including placenta accreta and its variants and genital tract laceration account for most cases of postpartum hemorrhage.

Table (1): Predisposing Factors and Causes of immediate PPH.

Process	Etiology	Risk Factors
Tone	Uterus over-distension	Multiple pregnancy Macrosomia Polyhydramnios Fetal abnormalities e.g., severe hydrocephalus
	Uterine muscle fatigue	Prolonged/precipitate labour, esp. if stimulated High parity (20-fold increased risk) Previous pregnancy with PPH
	Uterine-infection/ chorioamnionitis	Prolonged **PROM** Fever.
	Uterine distortion/abnormality	Fibroid uterus Placenta previa
	Uterine relaxing drugs	Anesthetic drugs, nifedipine, NSAIDs, beta-mimetics, MgSO4
Retained placenta	Retained placenta/membranes Abnormal placenta-succinturiate / accessory lobe	Incomplete placenta at delivery, especially<24weeks. Previous uterine surgery. Abnormal placenta on ultrasound.