

A clinical study on Management of Major Primary Postpartum Haemorrhage at tertiary care centre

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Abstract

Postpartum Haemorrhage (PPH) remains one of the leading causes of maternal morbidity and mortality worldwide. It is estimated that about one quarter to one half of preventable maternal deaths are because of haemorrhage. It is defined by the royal college of obstetrician and gynaecologist (RCOG) as blood loss from the genital tract within the first 24 hours after birth of at least 500ml (minor) and at least 1000ml (major). Early transfusion of blood and blood products prevent from developing coagulopathy. Causes of post-partum haemorrhage (PPH) are commonly ascribed to the four Ts (tone, trauma, tissue, 4 thrombin). Uterine atony is responsible for most of cases.

Aims and objectives

1. To know the current clinical practice in management of major primary postpartum haemorrhage at tertiary care centre
2. To evaluate the causes of major primary postpartum haemorrhage

Methodology

This study aimed to assess the clinical practices used by Pannadhay Mahila Hospital, Udaipur. in managing major PPH. A retrospective study of the management of PPH over a period of 2 months from march 2023 to april 2023 was carried out. The Following criteria were examined: history of previous PPH causes of PPH, use of oxytocin in the first stage for more than 6 hours. role of blood transfusion, presence of senior faculty, and type of uterotonics used.

Results: a total of 50 patients were diagnosed with major PPH among which 26 had caesarean delivery. Two major risk factors were analysed, one was Use of oxytocin in first stage for more than 6 hours and History of previous PPH. Uterine atony was commonest cause in 64% of cases followed by retained product of conception. Use of uterotonics were analysed among the patients which was consistent with current practice guideline.

Conclusion:

This study indicates that the management of women with major PPH in Pannadhay Mahila Hospital Udaipur is consistent with the current clinical practice. Uterine atony is responsible for most of cases.

Early, aggressive, and coordinated intervention by health care professionals is critical in minimizing blood loss to ensure optimal clinical outcomes in management of women with major PPH

Introduction

Postpartum Haemorrhage (PPH) remains one of the leading causes of maternal morbidity and mortality worldwide¹. It is estimated that about one quarter to one half of preventable maternal deaths are because of haemorrhage². It is defined by the royal college of obstetrician and gynaecologist (RCOG) as blood loss from the genital tract within the first 24 hours after birth of at least 500ml (minor) and at least 1000ml (major). Most common type of obstetrics haemorrhage is postpartum haemorrhage , mainly primary type³.haemorrhage is the fifth or sixth leading cause of death in developing countries. It accounts for the majority of cases that result in severe maternal or near miss obstetrics morbidity. Haemorrhage is the leading cause of death in developing countries⁴⁻⁶.Early transfusion of blood and blood products prevent from developing coagulopathy⁷. Causes of post-partum haemorrhage (PPH) are commonly ascribed to the four Ts (tone, trauma, tissue, thrombin). Uterine atony is responsible for most of cases⁸. The frequency and impact of severe haemorrhage can be effectively reduced by reducing avoidable risk factors, especially those related to obstetric interventions as increased CS rate and induction and augmentation of labour with injudicious use of uterotonics. Other risk factors not amenable to change such as age, ethnic origin, and pre-existing medical diseases or bleeding disorders can be minimized by extra vigilance and planned conjoined management³.

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Result :

1.Mode of delivery

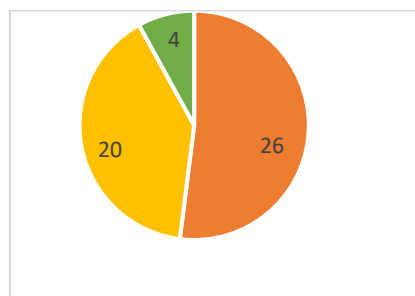


figure 1: mode of delivery

A total of 50 patients were diagnosed with PPH:

- 26 Caesarean Section
- 20 Spontaneous Vaginal Delivery
- 4 Instrumental Delivery

2. Amount of blood loss

Blood loss of more than 1000ml as major PPH. was considered 50 patients had blood loss of more than a litre.

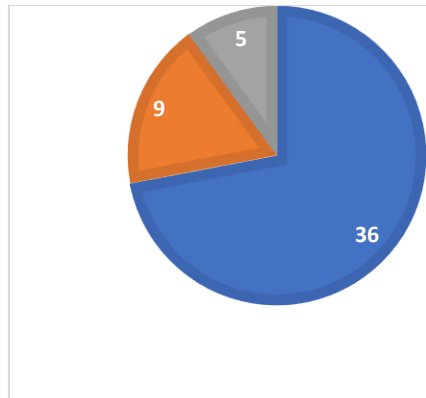


Figure 2: Amount of blood loss

- 72% had blood loss between 1000 to 1500ml (36/50)
- 18% had blood loss between 1500 to 2000ml (9/50)
- 10% had blood loss of more than 2000ml (5/50)

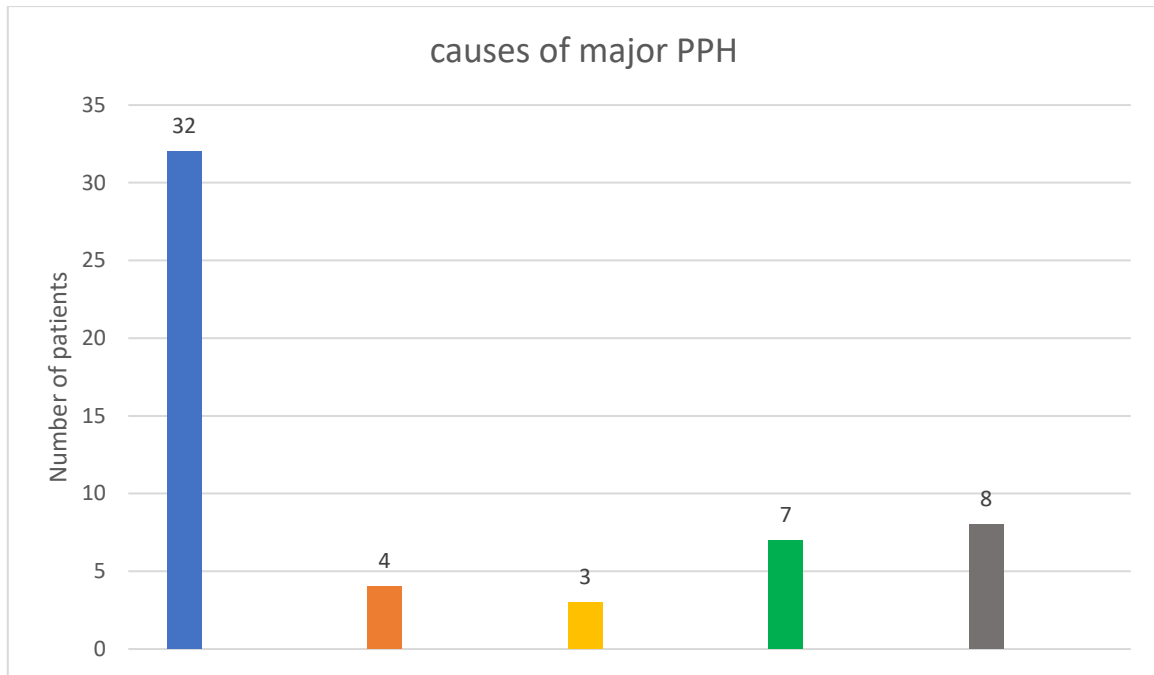
3. Risk factors associated

Two major risk factors were analysed:

Use of oxytocin in first stage for more than 6 hours 18% (9/50)

History of previous PPH 14% (7/50) Others 68% (34/50)

4. Causes of major PPH



Uterine atony was commonest cause in 64% of cases (32/50)

- Retained products of conception (RPOC) 8% (4/50)
- Angle extensions during CS 6% (3/50)
- Trauma 14% (7/50)
- Combined factors 8% (4/50)

5. Use of blood transfusion.

Nine patients received blood transfusion after PPH making 18%.

Reasons for getting blood transfusion were Hb less 7g/dl. Acute loss on chronic anemia, syncope.

6. Uterotonics Used in management of PPH

- Oxytocin bolus 100%
- Oxytocin infusion 100%
- Misoprostol tablet 100%
- Tranexamic acid 8%
- Syntometrine 12%
- Carboprost 10%

Conclusion: This study indicates that the management of women with major PPH in Pannadhay Mahila Hospital Udaipur is consistent with the current clinical practice. Uterine atony is responsible for most of cases. Early, aggressive, and coordinated intervention by health care professionals is critical in minimizing blood loss to ensure optimal clinical outcomes in management of women with major PPH

Conflicts of interest

The authors have no potential conflicts of interest.

Sources of funding

We did not receive any funds from any organization.

Ethical approval

We did not need ethical approval for our Study

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