

Post-Partum Hemorrhage in Khost Post Graduate Medical Education Hospital

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www.jrasb.com || Vol. 1 No. 2 (2022): June Issue

Date of Submission: 19-05-2022

Date of Acceptance: 15-06-2022

Date of Publication: 30-06-2022

ABSTRACT

The leading cause of maternal deaths in both industrialised and developing nations is Post-Partum Haemorrhage (PPH). It results from deviations in one of four fundamental processes, with uterine atony constituting the majority of cases. It's crucial to have a diverse approach to management. It is considered the importance of oxytocin and prostaglandins, such as misoprostol, in therapy. Uterine tamponade and compression sutures, two recently created, less invasive therapeutic options, are quickly emerging as viable substitutes for the conventional procedures of pelvic devascularization and hysterectomy. Public health initiatives and medical measures meant to reduce maternal mortality from PPH, which differs significantly across developing and industrialised nations, are further examined.

Dr. Sakhi Sardar and Dr. Sherzad Gul Sharif did this prospective observational research in the department of obstetrics and gynaecology at the Khost Provincial Hospital in Afghanistan. There were a total of 80 instances of Post-Partum Haemorrhage that met the criteria for inclusion. Data were gathered and examined in PPH patients who had both medicinal and surgical treatment.

In the current research, more than 50% of patients needed blood and blood products, and 60% of cases were multigravida. The majority of Post-Partum Haemorrhage (PPH) cases in the current research were treated medically. uterine toxins (42.5 %) Early detection and prompt intervention made this feasible.

In every situation, active management of the third stage of labour is advised. 70% of patients were handled medically, while the remaining 30% needed surgical intervention. Uterotonic medications and bimanual uterine compression were employed in medical care, although cervical and vaginal laceration repair was mostly needed in surgical management.

Keywords- Post-Partum Haemorrhage, Medical Education, Maternal, Uterine Toxins.

I. INTRODUCTION

In poor nations, complications during pregnancy and delivery continue to be the predominant cause of mortality and incapacity among women of reproductive age. More than 500 millilitres of blood are lost within 24 hours after a vaginal birth and 1,000 millilitres after a caesarean delivery are considered Post-Partum Haemorrhages. After the first 24 hours after birth, secondary PPH develops. Primary PPH happens sooner. Around 14 million women worldwide experience PPH each year. In underdeveloped nations, there is a risk

of 100 deaths due to haemorrhage every 100,000 live births. About 99 % of PPH-related fatalities take place in low- and middle-income countries, as opposed to only 1 % in developed ones. India accounted for 19 % of the world's maternal mortality in 2010 with 56,000 deaths, while having just 16 % of the world's PPH cases. According to reports, obstetric haemorrhage causes 56 % of maternal deaths in Afghanistan. A 56 %. Uterine atony was the most prevalent cause of primary PPH, which had a frequency of 2.5% after vaginal birth and 6% after caesarean surgery (50 %) Uterine atony is the most frequent reason for PPH. Multiple pregnancies, extended labour, retained placenta, foetal macrosomy, polyhydramnios, uterine myoma, placenta previa, grand

multiparity, uterine infection, and trauma are other factors.

The treatment and management of PPH involves the use of several medications and surgical procedures. But this research is focused on the idea that prevention is always preferable than treatment.

The delivery of the anterior shoulder during uterotonic treatment, early cord clamping, and controlled cord traction to deliver the placenta after placental separation are all part of the active management of the third stage of labour. The most popular uterotonic agent for PPH prophylaxis is oxytocin.

PPH has been proven to be decreased by other uterotonic substances such prostaglandins and methylergometrine (ergot alkaloids), which have been examined.

Resuscitation and identifying and treating the underlying cause are the two key components of Post-Partum Haemorrhage. Other life-saving procedures include hysterectomy, internal iliac artery ligation, uterine artery embolization, and the placement of compression sutures.

This research study's goal is to improve various therapeutic strategies for Post-Partum Haemorrhage patients and its minor and severe consequences. This research's goals and objectives included an overview of various Post-Partum Haemorrhage (PPH) treatment strategies and a review of major and minor problems brought on by PPH (PPH).

II. METHODS

All cases of Post-Partum Haemorrhage admitted to the Department of Obstetrics and Gynecology of the Khost Provincial and Post-Graduation Medical Education Hospital were the subject of a cross-sectional research between July 2002 and June 2021.

Based on a survey of the post-partum haemorrhage literature, a predesigned semi-structured questionnaire was created.

Age, gestational age, parity, a history of abortions, comorbidities, and addiction were all covered by the questionnaire. Additionally, it includes details on the quantity of blood lost, risk factors, delivery method, child's birthweight, PPH causes, blood transfusions, care of PPH, and maternal morbidity.

Inclusion criteria

- Patients whose estimated blood loss after vaginal birth exceeds 500 ml and after caesarean delivery exceeds 1000 ml
- Patients who have excessive bleeding that causes symptoms (such as dizziness, fainting, or lightheadedness) and/or hypovolemia symptoms (e.g., hypotension, tachycardia or oliguria)

Exclusion criteria

- The subject declines to take part in the research
- Women who are ill enough to refuse permission or an interview.

The specialist in charge of the patient will decide how the patients are to be managed.

All patients will get active third-stage labour management. Patients who need more uterotonics due to uterine atony will be recorded.

Trauma repair will be used to treat patients who have had traumatic Post-Partum Haemorrhage. Under general anaesthesia, placentas that have been retained by a patient will be manually removed. Transfusions of blood and blood products are used to treat patients with coagulation disorders.

The existence of risk factors in Post-Partum Haemorrhage patients will be evaluated, and patients will be monitored in the ward for maternal morbidity with sequelae including shock, renal failure, acute respiratory distress syndrome, coagulopathy, and Sheehan's syndrome.

For the study period, the incidence of Post-Partum Haemorrhage will be computed. In the event of a significant bleeding, the typical Post-Partum Haemorrhage therapy will be applied, and any further treatment shall be indicated.

Statistical analysis

Software is used to record data and analyses it.

III. RESULTS

The specialist in charge of the patient will decide how the patients are to be managed. All patients will get active third-stage labour management. Patients who need more uterotonics due to uterine atony will be recorded.

Trauma repair will be used to treat patients who have had traumatic Post-Partum Haemorrhage.

Under general anaesthesia, placentas that have been retained by a patient will be manually removed. Blood and blood product transfusions are used to treat patients with coagulation disorders.

Patients who have had Post-Partum Haemorrhage will have their risk factors evaluated, and they will also be monitored in the ward for maternal morbidity, which may include complications including shock, renal failure, acute respiratory distress syndrome, coagulopathy, and Sheehan's syndrome.

For the study period, the incidence of Post-Partum Haemorrhage will be computed. In the event of a significant bleeding, the typical Post-Partum Haemorrhage therapy will be applied, and any further treatment shall be indicated.

Data recorded and analysis done using software. Mean age 26.4 ± 7.4 years (Table 1).

Table 1: Age distribution of cases.

Age (in years)	Frequency	%
18 - 24	25	31.2
25-28	35	43.8
29-35	12	15.0
35 and above	8	10.0
Total	80.0	100.0

The majority of instances were multigravida, according to the data (Table 2).

Table 2: Distribution of cases according to parity.

Number	Frequency	%
Prim gravida	35	44.0
Multigravida	45	56.0
Total	80	100.0

It was shown that 37 (46.2%) of the individuals experienced blood loss ranging from 1000 to 1499ml (Table 3).

Table 3: Distribution of cases according to blood loss.

Blood loss (ml)	Frequency	%
500 - 999	28	35.0
1000 - 1499	37	46.2
1500 -1999	12	15.0
2000 - 2499	3	3.8
Total	80	100.0

According to the findings (Table 4), more than half of the patients needed blood and blood products. In the current investigation, medicinal treatments were used to treat the majority of PPH patients.

Table 4: Distribution of cases according to blood transfusion.

Blood transfusion	Frequency	%
Blood transfusion	44	55.0
Platelet transfusion	6	7.5
FFP transfusion	2	5.0

This was made possible by our institute's early detection and quick action (Table 5). It was discovered that 38 (62.5) instances exhibited febrile morbidity, which was followed by anaemia. Sepsis produced the most severe morbidity.

Table 5: Distribution of cases according to management of PPH.

Management	Frequency	%
Medical management		
Uterotonic drugs	56	70.0

Bimanual uterine	34	42.5
Compression	22	27.5
Surgical management		
Repair of cervical and vaginal laceration	12	15.0
Removal of retained placenta	24	30.0
Uterine artery ligation	4	5.0
Internal illiac	4	5.0
Artery ligation	2	2.5
Hysterectomy	2	2.5
Total	80	100.0

This higher morbidity resulted in a longer stay, the usage of broad-spectrum antibiotics, and, ultimately, a greater socioeconomic burden (Table 6).

Table 6: Distribution of cases according to maternal morbidity.

Maternal morbidity	Frequency	%
Fever	38	62.5
Anemia	12	15.0
CCF	2	5.0
Sepsis	2	2.5
No morbidity	45	56.2
Total	80	100.0

IV. DISCUSSION

PPH is still a significant cause of maternal mortality and morbidity globally, particularly in underdeveloped countries, with an estimated mortality rate of 140,000 per year, or one maternal death every four minutes. PPH occurs in 5% of births, and the majority of deaths happen within four hours after delivery, suggesting that it is a result of the third stage of labour. The alarmingly high maternal mortality rate of 638 per 100,000 live births in Afghanistan over the last three decades continues to be a serious problem.

500–1,000 mL of blood loss is commonly tolerated by healthy pregnant women without showing any symptoms. The first indication of postpartum bleeding may be tachycardia. Other symptoms include hypotension, orthostasis, nausea, dyspnea, oliguria, and chest discomfort might point to substantial hemorrhage-related hypovolemia. If excessive bleeding is seen, the four T's mnemonic (uterine atony (tone); laceration, hematoma, inversion, rupture (trauma); retained tissue or invasive placenta (tissue); and coagulopathy (thrombin) may be utilised to pinpoint particular reasons. Regardless of the reason for the bleeding, medical professionals need to call for more help right once and start the proper emergency haemorrhage measures.

When all previous attempts to stop the bleeding have failed, the conventional therapy for refractory PPH

is hysterectomy. In many instances, safe and efficient alternatives to hysterectomy have been made possible by improvements in interventional radiology and surgical methods.

35 (43.8) individuals in the current research were found to be between the ages of 25 and 28. These were followed by 25 (31.2) participants who were between the ages of 18 and 24.

Ononge S. et al. and HalleEkane GE et al. observed similar findings.

10,11 In the research done by Ononge S et al, it was found that 31 (29.0) instances were of primigravida and 76 (71.0) cases were of multigravida. Similar results were found in the current investigation.

In the current research, it was shown that 28 (35.0) people lost between 500 and 999 ml of blood, 37 (46.2) participants lost between 1000 and 1499 ml of blood, 12 (15.0) participants lost between 1500 and 1999 ml of blood, and 3 (3.8) participants lost between 2000 and 2499 ml of blood.

In the current research, it was found that 62 (77.5) cases had uterine atony, 12 (15.0) cases had perineal injuries, 4 (5.0) cases had retained placentas, and 2 (2.5) cases had bleeding disorders. The majority of research reported the same conclusions.

In the current research, it was found that 24 (30.0) instances had surgical management, whereas 56 (70.0) cases received medicinal treatment. In the medical treatment, 22 (27.5) instances had bimanual uterine compression, and 34 (42.5) cases had employed uterotonic medications.

12 (15.0) instances of surgical therapy included the closure of cervical and vaginal lacerations, 4 (5.0) cases involved the removal of a retained placenta, 4 (5.0) cases involved uterine artery ligation, 4 (5.0) cases involved internal iliac artery ligation, and 2 (2.5) cases involved hysterectomy. Internal iliac artery ligation was performed in 4 (3.74) instances, uterine artery ligation in 9 (7.8) cases, and hysterectomy in 23 (25.56) cases. 14 authors noted that 44 (55.0) patients received blood transfusions, 6 (7.5) cases received platelet transfusions, and 2 (5.0) cases received FFP transfusions. Our results are similar to those of previous research. In the current research, it was shown that 38 (62.5) patients had fever, 12 (15.0) cases had anaemia, 2 (5.0) cases had CCF, and 2 (2.5) cases had sepsis.

V. CONCLUSION

The most frequent causes of PPH were uterine atony and subsequent perineal trauma.

The most common reason for intensive care unit hospitalizations and the most avoidable factor in maternal death is haemorrhage. There isn't a PPH management approach that everyone agrees on. 70% of patients were handled medically, while the remaining 30% needed surgical intervention. Uterine artery ligation, closure of cervical and vaginal lacerations,

evacuation of the retained placenta, and uterotonic medications were employed in the medical care of the condition. Internal iliac artery ligation and hysterectomy were needed in just two instances.

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