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Application of departmental management protocol for treating antepartum haemorrhage at UNIMEDTH, Akure: A 5 year overview

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Abstract

Preamble: This study examined the management protocol of antepartum haemorrhage and the outcome among pregnant women in University of Medical Sciences Teaching Hospital, Akure Complex. To achieve the purpose of the study, five objectives, five research questions and two corresponding null hypothesis were formulated to guide the study. Literature was reviewed under conceptual framework, theoretical framework, empirical studies and summary of literature. Some terms were conceptualized like, antepartum hemorrhage, causes of antepartum hemorrhage, predisposing factors and management guidelines for antepartum hemorrhage. Some theories related to the study were reviewed and the study was predicated on a combination of three theories namely, theory of reason action, health action process approach and three delays model.

Methodology: A descriptive retrospective hospital-based design was employed for the study. The population for the study was all patients managed for antepartum haemorrhage over a period of 5 years from 2018-2022. Two hundred and seven patients out of 9,890 deliveries had Antepartum haemorrhage at the University of Medical Sciences Teaching Hospital, Akure Complex for the period under review. The instrument for data collection was a researcher developed proforma consisting of six sections. In order to determine the reliability of the instrument, Cronbach's Alpha method of reliability was adopted. The overall reliability co-efficient of 0.83 was obtained, which was deemed high enough to make the instrument reliable. The researcher extracted the required information/data from the hospital records, case notes and theatre registers of the hospital kept from 2018-2022. Data were analyzed using descriptive and inferential statistics and the null hypotheses were tested at 0.05 level of significance.

Results: The study found among others, prevalence of antepartum hemorrhage among pregnant women in a specific location to be 2.1%. The management protocol of antepartum hemorrhage patients at UNIMEDTH was evaluated, and the overall standard of implementation was considered satisfactory. Placenta previa was the most common cause, and effective management strategies were employed, including blood transfusions and electronic fetal monitoring. A significant association was found between obstetrics history and antepartum hemorrhage, and a significant relationship was also found between management protocol and outcome of management among pregnant women.

Conclusion: Antepartum haemorrhage is an important obstetric emergency that contributes significantly to maternal morbidity and mortality. It is imperative for standard well spelt out management protocols of antepartum haemorrhage to exist in every hospital in order to improve the outcomes of management. Reducing the rate of caesarean section will lead to reduction in incidences of antepartum haemorrhage.

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Keywords: Antepartum haemorrhage, management protocol, obstetric emergency, pregnancy complication, placenta praevia, abruption placenta, fetomaternal outcomes

Introduction

Management of Antepartum Hemorrhage

Action should be swift and decisive once Antepartum haemorrhage, for example from placental abruption has been encountered, because the prognosis for mother and fetus is worsened by delay ^[1]. Treatment consists of initial resuscitation and stabilization of the mother and recognition and management of complications. It is individualized based on the extent of the bleeding and identified cause, maternal and fetal reaction to this insult, and gestational age of the fetus. Antepartum haemorrhage is one of deadliest obstetrics complications and complicates 2.5% of pregnancies ^[2].

Even if the patient is bleeding only a small amount, they should still be taken to the hospital for evaluation and treatment because there could be a much larger amount of hidden bleeding going on beneath the surface. The mainstays of management of massive haemorrhage are effective communication between clinical staff, resuscitation, monitoring and accurate diagnosis of the underlying cause. The bleeding may be arrested by delivery of the fetus. The first step is to calculate the approximate blood loss. This must be taken into account alongside an evaluation for clinical shock symptoms, as it is frequently overlooked. The parameters for calculating blood loss gives 4 degrees of antepartum haemorrhage as follows [3]

- Spotting = Stains, streaking, or blood spotting on underwear or sanitary pad
- Minor haemorrhage = blood loss < 50 ml and has stopped.
- Major haemorrhage = blood loss 50-1000 ml with no signs of shock.
- Massive haemorrhage = blood loss >1000 ml and/or signs of shock.

For an established case of severe bleeding: the mother's life should take priority. Any decision regarding the delivery of the baby should wait until the mother's condition is stable.

In cases of fetal distress: urgent delivery of the baby, irrespective of gestational age. Fetal compromise is an important indicator of reduced circulating blood volume. No vaginal examination should be attempted, at least until a placenta praevia is excluded by ultrasound. It may initiate torrential bleeding from a placenta praevia. However resuscitation can be inadequate because of underestimation of blood loss and misleading maternal response, especially in small women. For example, a woman who weighs 55 kg will have lost almost 30% of her blood volume if she loses 1500 ml of blood, whereas for a woman of 70 kg, this represents about 20% of her blood volume. Furthermore, blood tests, gentle palpation of the abdomen to determine gestational age of fetus, and fetal monitoring should be carried out promptly. Also diagnostic procedures that includes ultrasound to exclude placenta praevia should be done. Note that ultrasound cannot exclude placental abruption, which is a clinical diagnosis. With every episode of bleeding, a rhesus-negative woman should have a Kleihauer test and be given prophylactic anti-D immunoglobulin. Maternal corticosteroids should be offered to any woman at risk of preterm birth, who is between 24+0 and 35+6 weeks of gestation. Further management will depend on fetal distress, the cause of the APH, the extent of bleeding and gestation. On the whole all women need to be assessed individually, taking into account not only the amount of blood loss but also any relevant current or past medical and obstetric history.

In abruption placenta for example, the basic parameters for assessment are to determine degrees of severity according to grades as follows.

Grade 0

This is not recognized clinically before delivery and usually diagnosed by the presence of a retro placental clot after delivery. This is a retrospective diagnosis.

Grade 1

Slight vaginal bleeding.

Uterus minimal tenderness.

Maternal vitals and fibrinogen levels normal.

Fetal heart rate is good.

Grade 2

Vaginal bleeding mild to moderate.

Uterine tenderness present.

Maternal tachycardia and decreased fibrinogen levels.

Fetal distress / fetal death.

Grade 3

Severe vaginal bleeding.

Marked uterine tenderness.

Maternal shock associated with coagulation defect.

Fetal death.

Management option.

Grade 1 & 2

Resuscitation.

Delivery.

Consider vaginal delivery if no fetal distress.

Grade 3

Resuscitation.

Delivery.

Emergency LSCS.

Fetal Outcomes in women with antepartum hemorrhage

Antepartum hemorrhage has an increased risk of preterm delivery with up-to one-fifth of very preterm babies born in Association with APH, [4] most fetal complications are due to sequelae of prematurity. In Austrian hospitals reported fetal outcomes associated with placenta praevia were preterm birth 54.9%, low birth weight 35.6%, low APGAR-score 5.8%, and fetal mortality 1.5%, this study concluded that placenta praevia has a high risk of preterm delivery [5].

In another study in India, fetal outcomes of women with APH observed were preterm delivery in 60%, low birth weight in 40%, NICU admissions in 44%, and perinatal mortality in 21%, NICU admissions were due to prematurity low birth weight, and birth asphyxia [6].

Similarly, perinatal outcomes observed by Jharaik in India were prematurity in 25.8% of the cases out of which 60% were due to placenta praevia, neonates with low APGAR score 34.0%, perinatal deaths 20.1% [7]. In the study, a large proportion (74.2%) were term deliveries, 88.4% were live births of which 8.6% died in NICU. The lower rates of adverse fetal outcomes can be due to the maturity of the fetus and improved antenatal and perinatal care in India.

Another prospective study was done at Govt. RSRM hospital in Indian women with APH, the observed fetal outcomes were low birth weight in 62.7%, preterm babies in 45.3%, and perinatal mortality in 16%. In this study, placental abruption had a high frequency of low birth weight, preterm delivery, and perinatal deaths [8].

In another study in Ethiopia reported fetal outcomes of APH were preterm birth in 57.4% and perinatal mortality in 36.9% [9].

In Burkina Faso, Lankoande found that fetal outcomes of severe APH were preterm births in 12.3% and perinatal deaths 18.1% of the studied population [10]. In Ibadan Nigeria frequency of preterm birth was 27.4% and perinatal mortality 36.5% in APH were higher compared to the former study [11].

In a study of causes of stillbirth in Nigeria, it was found that placental abruption was the leading cause followed by hypertensive disorders, but also placenta previa was among contributors of stillbirths.¹² In Tanzania, a study done at Bugando Medical Centre fetal adverse outcomes due to placental abruption identified were prematurity 82.1%, fetal distress

68.4%, low birth weight 48.4% and intrauterine fetal deaths 31.6%. Perinatal deaths occurred in 54.7% of the cases and were predicted by low birth weight whereby most neonates had birth asphyxia [13].

Antepartum Haemorrhage Management Protocol at UNIMEDTH, Akure

The management of antepartum haemorrhage patients is done at the Obstetrics and gynaecology department of the hospital. Though, those that present in emergencies may occasionally be seen first at the casualty especially outside working hours. The department has five (5) Obstetrics and Gynaecology (O & G) consultants under whom the patients are registered and who also determine the direction and modalities of patients’ management. However, there is an agreed departmental protocol for management of Antepartum haemorrhage that serves as reference point for all the consultants as far as management of antepartum haemorrhage is concerned.

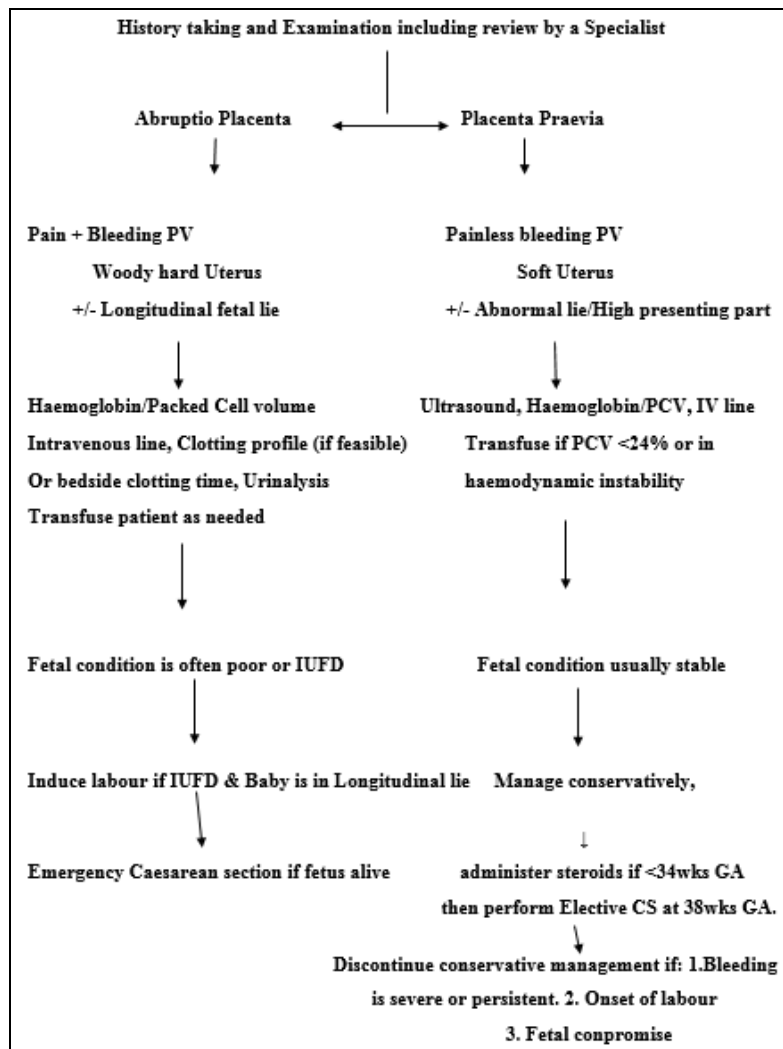
Steps in the departmental protocol for management of antepartum haemorrhage at UNIMEDTH

Adequate history taking and examination of the patient is carried out by the attending doctor who by this, establishes that the patient has antepartum haemorrhage and by extension determines to a large extent, the particular cause of the haemorrhage. In most cases, this can be placenta praevia or

abruption placenta.

For abruption placenta which features abdominal pains, bleeding per vagina that may include altered blood, woody hard uterus in support of diagnosis, and a packed cell volume is urgently done, intravenous cannula is inserted at which blood samples for investigations will be taken including the remaining components of Full blood count, clotting profile, electrolytes and serological screening. Infusion of crystalloids and other resuscitative measures are instituted. If fetus is dead and without any other contraindication for vagina delivery, labour is induced but if baby is alive, emergency caesarean section can be done to salvage the baby.

When the bleeding is due to placenta praevia in which the bleeding is usually painless with soft uterus. Vagina examination is avoided as much as possible to avoid provocation of serious bleeding. Resuscitative measures and initial interventions will follow as stated for abruptio placenta. Patient can be transfused if the packed cell volume is less than 24% or patient is in haemodynamic instability. Fetal condition is usually stable. Patients can be managed conservatively with McCafe regimen especially if bleeding subsides. Corticosteroids are administered when gestational age is less than 34weeks. Patients can be managed till 38weeks if no any problem. Conservative management is discontinued if bleeding is severe or persistent, onset of labour, evidence of fetal compromise or fetal death.



Please note that the consultant or the Chief Medical Officer must be involved in the management of patients with Antepartum haemorrhage from the time of admission

Fig 1: Schematic Presentation of the protocol for management of antepartum haemorrhage at university of medical sciences teaching hospital, Akure

Aim of the study

The study assessed the prevalence of antepartum haemorrhage, the predominant causes amongst those that presented with antepartum haemorrhage and the outcomes of management in terms of baby's APGA score and rate of admission to neonatal care unit.

Objectives of the study**General Objective**

To find out how common antepartum haemorrhage was amongst those that delivered in the center over the period of 5 years, the predominant causes of antepartum haemorrhage and the outcomes of their management using the departmental protocol.

Specific Objectives

1. The study tried to find out the number of patients that presented with antepartum haemorrhage amongst all patients that delivered in UNIMEDTH over a period of 5 years
2. The study evaluated the predominant causes of antepartum haemorrhage amongst those that presented with the condition over the study period
3. The study assessed the outcomes of management of antepartum haemorrhage, using the departmental protocol, in terms of neonatal APGAR score and admission to neonatal care unit.

Methodology

Site: The study was carried out at the obstetrics and Gynaecology department of University of Medical Sciences Teaching Hospital, Akure.

Design: The study is a descriptive cross sectional study.

Study Population: The study was conducted on all patients that had antepartum haemorrhage and were managed in the Obstetrics and Gynaecology department of the UNIMEDTH, Akure.

Inclusion criteria: All patients that had bleeding in pregnancy

after 28 weeks of pregnancy and were managed and delivered at the Obstetrics and Gynaecology department of the UNIMEDTH, Akure.

Ethical Considerations

Ethical clearance was obtained from the Research and Ethics committee to carry out the descriptive retrospective study which was granted. No any conflict of interest on the part of the researchers.

Data Collection instrument

A simple structured questionnaire was used as instrument for collecting data. It was written in plain English language and provision for interpretation made for those that cannot understand or read English.

Data Collection Procedure

The study was based on information derivable from the case folders of the patients, their labour ward records and antenatal ward records. With the aid of trained research assistants, the researcher went through and reviewed the hospital files, antenatal records, labour ward registers and neonatal documentations of all patients managed for antepartum haemorrhage in the hospital over a period of 5 years.

Their social and obstetrics bio data, mode of presentation, diagnosis and management outcomes were extracted from the records. The study proforma was used as a template for extracting the required information from the records.

Method of data analysis

The study proforma was carefully sorted for appropriate filling and completeness. The data was entered, cleaned and analyzed using the Statistical Package for the Social Sciences (SPSS) version 29. Frequency tables was drawn and Chi square analysis was used for categorical variables and p-value of <0.05 considered significant.

Results**Management Protocols of Antepartum Haemorrhage Patients in UNIMEDTH, Akure Complex**

Table 1: Table showing management protocols of patient's antepartum hemorrhage in UNIMEDTH, Akure, Ondo State

| Variables | Options | Frequency | Percentage | Remarks |
|--|---------|-----------|------------|---|
| Immediately rushed to hospital while bleeding | No | 83 | 40.1% | Majority could get to hospital facility on time for medical attention (59.9%) |
| | Yes | 124 | 59.9% | |
| Patient had prompt medical attention | No | 97 | 46.9% | Majority had prompt medical attention (53.1%) |
| | Yes | 110 | 53.1% | |
| Staff immediately took patients medical, obstetrics and social history | Yes | 117 | 56.5% | Majority had their medical history taken by staff (56.5%) |
| | No | 90 | 43.5% | |
| Assessed rate of blood loss | Yes | 112 | 54.1% | Majority had their rate of blood loss assessed (54.1%) |
| | No | 95 | 45% | |
| Ultrasound carried out | Yes | 129 | 62.3 | Majority had their ultrasound carried out (62.3%) |
| | No | 78 | 37.7% | |
| Kleihauere test | Yes | 0 | 0% | Kleihauere test was not carried out on all the patients (100%) |
| | No | 207 | 100% | |
| Had immediate caesarean operation | Yes | 69 | 33.3% | Only 33.3% required immediate caesarean section |
| | No | 138 | 66.7% | |
| Managed conservatively on McCafe Regimen for days | Yes | 32 | 23.2% | Majority of those not sectioned immediately were managed for days before delivery |
| | No | 106 | 76.8% | |
| Specialist Obstetrician available | Yes | 207 | 100% | Majority, it was indicated that there was a specialist to attend to the patient |
| | No | - | 0 | |

Table above is an assessment of the guidelines and management mechanisms of antepartum hemorrhage patients. The information above suggests that although the majority of individuals were able to reach the hospital facility in a timely manner (59.9%), a significant proportion also did receive prompt medical attention (53.1%). Furthermore, it was reported that most individuals had their medical history taken by staff (56.5%), Majority had their rate of blood loss assessed (54.1%), and an ultrasound performed (62.3%). On the other hand, all the patients did not undergo the Kleihauer test (100%), which is used to determine the amount of fetal blood in maternal circulation probably for lack of facility at those times. Interestingly, despite the fact that there was no delay in receiving prompt medical attention, the majority of the patients (66.7%) eventually were conservatively managed, meaning they were treated without surgery initially. Additionally, most individuals had the opportunity to consult with a specialist (100%). The above data suggests that there were variations from the standard procedures for the management of antepartum hemorrhage in the studied population. The majority of individuals were able to reach the hospital facility on time,

which is a crucial step in managing antepartum hemorrhage, a significant proportion did receive prompt medical attention. Prompt medical attention is vital in order to quickly assess and treat the condition. Furthermore, although a majority of individuals had their medical history taken, their rate of blood loss assessed, and underwent ultrasound, all the patients (100%) did not undergo the Kleihauer test. The Kleihauer test is an important diagnostic tool that helps determine the amount of fetal blood in maternal circulation. Omitting this test may lead to an incomplete evaluation of the severity of the hemorrhage.

Despite these deviations, it is positive to note that the majority of individuals eventually received immediate medical attention and were initially conservatively managed, which aligns with the McCafe regimen, standard approach for managing antepartum hemorrhage especially if caused by placenta previa and bleeding subsided. Consulting with a specialist also indicates adherence to standard procedures. Overall, while some aspects of the standard management protocols for antepartum hemorrhage were not fully followed in the studied population for instance in the area of Kleihauer test, there were majority of instances where standard procedures were achieved.

Table 2: Management strategies for antepartum haemorrhage in UNIMEDTH, Akure Complex

| Variables | Options | Frequency | Remarks |
|---|----------------------|------------|---|
| Duration of bleeding before presenting to hospital | < 4 hours | 80(38.5%) | Majority of participants 87(42.1%) had over 12hrs of bleeding before presentation to hospital. |
| | 4-8 hrs | 30(14.4%) | |
| | 8-12 hrs | 10(4.8%) | |
| | Over 12 hrs | 87(42.1%) | |
| Cause of the antepartum haemorrhage found | Placenta praevia | 100(48.3%) | Majority of respondents 100(48.3%) had placenta praevia as the cause. The rest had abruptio, vasa placenta and others. |
| | Abruptio placenta | 40(19.3%) | |
| | Vasa previa | 37(17.8%) | |
| | other causes | 30(14.6%) | |
| Packed cell Volume at presentation | <20% | 80(38.5%) | Majority 100(48.3%) had Pack cell volume between 25-30% at presentation. |
| | 20-25% | 20(9.7%) | |
| | 25-30% | 100(48.3%) | |
| | >30% | 7(3.3%) | |
| Blood transfusion required, how long did it take before commencing | 4hrs | 20(9.8%) | Majority 100(48.3%) had blood transfusion commenced at >12hrs. |
| | 8hrs | 80(38.5%) | |
| | 12hrs | 100(48.3%) | |
| | 24hrs | 7(3.4%) | |
| How many pints of blood transfused | 1 | 85(41.1%) | Majority 98(47.3%) received 2pints of blood. |
| | 2 | 98(47.3%) | |
| | 3 | 10(4.8%) | |
| | 4 | 14(6.7%) | |
| | >4 | 0 | |
| Was there need for additional blood products | Yes | 10(4.8%) | Majority 197(95.2%) didn't need additional blood products |
| | No | 197(95.2) | |
| Which required additional blood products were available for us | FFP | 7(3.4%) | Majority 160(77.3%) acknowledged the availability of Packed cells. |
| | Cryoprecipitate | 10(4.8%) | |
| | Platelet concentrate | 30(14.5%) | |
| | Packed cells | 160(77.3%) | |
| Was there initial fluid resuscitation before blood transfusion commenced | Yes | 150(72.5%) | Majority 150(72.5%) had initial fluid resuscitation. |
| No | 57(27.5%) | | |
| Any continuous electronic fetal monitoring for the baby after presentation | Yes | 140(67.6%) | Majority 140(67.6%) had electronic fetal monitoring |
| | No | 67(32.4%) | |
| Did the condition require emergency surgical intervention | Yes | 101(48.8%) | Majority 106(51.2%) did not require emergency surgical intervention |
| | No | 106(51.2%) | |
| What is the interval between decision to operate and actual operation for those that required | within 30min | 5(5%) | For majority of the patients that needed emergency surgery, 41(40.6%) the interval between decision to operate and actual operation was 4-8hrs. |
| | 30min-1hr | 10(9.9%) | |
| | 1-4hrs | 30(29.7%) | |
| | 4-8hrs | 41(40.6%) | |
| | 8-12hrs | 15(14.8%) | |
| Were paediatricians available at delivery for baby's resuscitation | >12hrs | 0 | For all the patients the availability of paediatricians for baby's resuscitation was acknowledged. |
| | Yes | 207(100%) | |
| | No | 0 | |

Table 2 above represents the evaluation of the management protocol for antepartum hemorrhage in the study location. The

results revealed that 42.1% of patients experienced bleeding for over 12 hours before seeking medical attention. The most

common cause of antepartum hemorrhage was placenta previa, accounting for 48.3% of cases. Other causes included abruptio placenta, vasa previa, and some other less common causes. At the time of presentation, 48.3% of participants had a pack cell volume (PCV) between 25-30%, indicating significant blood loss that could lower the PCV below the normal 30%. A significant majority (47.3%) received a blood transfusion, with 2 pints of blood being the most common amount administered. The majority of participants (95.2%) did not require additional blood products beyond the initial transfusion, suggesting effective management strategies.

Resources for managing antepartum hemorrhage were largely available because for most of the patients (77.3%) the availability of packed red blood cells for transfusion was acknowledged and 72.5% receiving initial fluid resuscitation.

Electronic fetal monitoring was performed for 67.6% of the patients, emphasizing the importance of monitoring the baby's condition. Emergency/Urgent intervention was necessary in almost half (48.8%) of the patients that required surgical intervention, reflecting the severity and urgency of the condition. For the majority (40.6%) of those that required urgent surgery, it was done 4-8hours after the decision was taken. For all patients managed, the availability of pediatricians for potential resuscitation of the baby was acknowledged, ensuring comprehensive care for both the mother and baby.

Maternal and perinatal outcomes of antepartum haemorrhage management among pregnant women in UNIMEDTH, Akure Complex

Table 3: Table showing maternal and perinatal outcomes of antepartum haemorrhage management among pregnant women in UNIMEDTH, Akure, Ondo State

| Variables | Options | Frequency | Percentage | Remarks |
|---------------------------------------|---|-----------|------------|---|
| Had premature delivery | Yes | 10 | 4.8% | Majority did not have premature delivery (95.2%) |
| | No | 197 | 95.2% | |
| Had caesarean at delivery | Yes | 199 | 96.1% | Majority did have caesarean operation (emergency/elective), (96.1%) |
| | No | 8 | 3.9% | |
| Had blood transfusion during delivery | Yes | 10 | 4.8% | Majority did not have blood transfusion during delivery (95.2%) |
| | No | 197 | 95.2% | |
| Collapsed during pregnancy | Yes | - | - | None collapsed during pregnancy (100%) |
| | No | 207 | 100% | |
| Was admitted in ICU | Yes | 10 | 4.8% | Majority were not admitted to ICU (95.2%) |
| | No | 197 | 95.2% | |
| Baby APGA at delivery | Good | 134 | 64% | Majority (64%) of the babies had good health conditions at birth |
| | Mild-Moderate asphyxia | 50 | 24.2% | |
| | Severe asphyxia needing admission to NICU | 14 | 6.8% | |
| | Dead fetuses | 9 | 4.3% | |

The data in Table 3 provides information on the maternal and perinatal outcomes of antepartum hemorrhage among pregnant women.

The majority of patients, 95.2% did not have a premature delivery, over seventy percent (71.5%) did not require a cesarean operation. Ninety-five percent (95.2%) did not require a blood transfusion, all the patients managed (100%) did not experience collapse during pregnancy, and 4.8% were temporarily admitted to the intensive care unit (ICU).

These findings indicate that the majority of pregnant women in the study did not encounter these obvious consequences typically associated with antepartum hemorrhage. The occurrence of these consequences was relatively low, meaning

that only a minority of patients experienced them. These results align with the earlier finding that the prevalence rate of antepartum hemorrhage among pregnant mothers in the study location is low. It can be inferred from the data that the consequences of antepartum hemorrhage include premature delivery, the need for a cesarean operation, blood transfusion, and potential admission to the ICU and poor neonatal outcome. However, it is reassuring that the majority of participants did not face these complications.

Overall, these findings highlight that while antepartum hemorrhage can lead to significant consequences, the majority of pregnant women in the study did not experience these specific outcomes.

Table 4: Analysis of relationship between the management protocol and management outcome of antepartum haemorrhage among pregnant women

| | | Have patients ever experienced antepartum haemorrhage? | | Total |
|--|-----|--|------|-------|
| | | Yes | No | |
| Had a prompt medical examination/attention | Yes | Count | 35 | 97 |
| | | Expected Count | 25.8 | |
| | No | Count | 20 | 110 |
| | | Expected Count | 29.2 | |
| Total | | Count | 55 | 207 |

Chi-square test (χ^2) = 8.466, Degree of Freedom=1, p-value (0.004) < 0.05

The result of the chi-square test statistic in the Table 4 above, the result shows that there was a significant relationship between the management protocol and management outcome of antepartum haemorrhage among pregnant women. This led to the rejection of the null hypothesis that there is no significant relationship between the management protocol and management

outcome of antepartum haemorrhage among pregnant women. Since, the Chi-square test statistic = 8.466, with DF=1, and Sig. p-value (0.004) smaller than the level of significance (0.05). Hence, we say there exist a significant relationship between the management protocol and management outcome of antepartum haemorrhage among pregnant women.

Discussion

Management protocol of antepartum haemorrhage and their outcomes among pregnant women in UNIMEDTH, Akure Complex

The findings of the study revealed some interesting observations regarding the adherence to standard protocols in the management of this condition. One crucial aspect highlighted in the study is the importance of prompt medical attention for antepartum hemorrhage. While the majority of individuals were able to reach the hospital facility on time, a significant proportion also did receive prompt medical attention. Delay in receiving appropriate care can have serious consequences for both the mother and the fetus, as timely intervention is crucial to manage bleeding and prevent further complications [14].

The study also observed that while most individuals had their medical history taken, blood loss assessed, and underwent an ultrasound, all of the patients did not undergo the Kleihauer test. The Kleihauer test is a necessity because it is a crucial diagnostic tool used to determine the amount of fetal blood that has mixed with the maternal blood in cases of hemorrhage [15]. The absence of this test in some cases suggests a potential gap in the diagnostic process, which may impact the accuracy of the diagnosis and subsequent management decisions. Despite these variations from standard procedures, the majority of individuals eventually received the required medical attention and were conservatively managed, with the opportunity to consult with a specialist. This suggests that even with deviations from certain protocols, healthcare providers were able to effectively manage antepartum hemorrhage patients in line with established treatment guidelines.

The study concludes that the standard of implementation of guidelines and management mechanisms for antepartum hemorrhage patients in UNIMEDTH, Akure, Ondo State was satisfactory based on the results obtained. To ensure the highest quality of care, continuous monitoring, evaluation, and improvement of the management protocols for antepartum hemorrhage should be undertaken. It is essential to address the gaps identified in this study, such as the importance of timely medical attention and the need for comprehensive diagnostic procedures, including the Kleihauer test. More importantly, these findings shed light on the management practices of antepartum hemorrhage in a specific healthcare facility. The study highlights both adherence to and deviations from standard protocols. Although the overall standard of implementation of guidelines and management mechanisms was found to be satisfactory, ongoing efforts should be made to improve the quality of care provided to antepartum hemorrhage patients.

Maternal and perinatal outcomes antepartum haemorrhage management in UNIMEDTH, Akure Complex

The findings of this study suggest that antepartum hemorrhage can have various negative outcomes, premature delivery, increased risk of caesarean delivery, poor neonatal outcome and need for blood transfusion. These outcomes are consistent with previous research that has identified these complications as potential consequences of antepartum hemorrhage [16, 17]. The study observed that most negative outcomes associated with antepartum hemorrhage were relatively minimal among the respondents in the present study, with only a minority experiencing these consequences. Additionally, this finding is comparable to that of [18] who conducted a study in Bombo, a region in China. They found institutional prevalence of antepartum haemorrhage of 1.2% and that the major causes are abruptio placenta and placenta praevia. Intrauterine fetal death

was their major adverse fetal outcome.

Important to note that the context of the study and the management protocols implemented at the healthcare facility may have contributed to these favorable outcomes. Prompt medical attention, appropriate interventions, and comprehensive care can significantly reduce the chances of severe consequences associated with antepartum hemorrhage.

Premature delivery, on the other hand, refers to the birth of the baby before reaching full term. Antepartum hemorrhage can cause complications such as placental detachment otherwise known as abruptio placenta, fetal distress which may necessitate premature delivery to ensure the well-being of the baby and mother.

While the study reports that the consequences of antepartum hemorrhage were minimal among the respondents, it is crucial to recognize that these findings may not be representative of all cases of antepartum hemorrhage. The severity of the consequences can vary depending on factors such as the underlying cause of hemorrhage, the timing of intervention, and the overall health of the mother and baby.

Relationship between the management protocol and management outcome of antepartum haemorrhage among pregnant women

The study also found a significant relationship between the management protocol used and the management outcomes of APH among pregnant women. This indicates that the specific interventions and treatment strategies which constitute the management protocol employed in the study location were effective in improving the outcomes for women with APH. Antepartum haemorrhage management protocol includes admission for conservative management when bleeding is minimal called McCafe regimen or immediate intervention surgically when bleeding is significant or there is obvious fetal/maternal compromise. The effective management of APH typically involves timely and appropriate interventions. Studies have shown that systematic management protocols, including blood transfusions, and timely delivery if necessary, can significantly reduce maternal morbidity and mortality associated with APH [19]. Therefore, the implementation of effective management protocols is crucial for improving outcomes in women with APH. There is need for health care givers to continue and improve on aspects of care that gives patients satisfaction and discourage those that make the patients dissatisfied [20].

The findings of this study therefore suggest that the obstetric history of pregnant women is associated with the occurrence of APH, and the management protocol used plays a significant role in improving the outcomes for women with APH. It underscores the importance of considering obstetric history and implementing effective management protocols in the care of pregnant women with APH.

Conclusion

This study found a significant relationship between the use of management protocol and the management outcomes of APH among pregnant women. This indicates that the specific interventions and treatment strategies which constitute the management protocol employed in the study location were effective in improving the outcomes for women with APH. Therefore, adopting the practice of having well laid down management protocol for managing Antepartum haemorrhage in obstetrics centres is beneficial and helps improve management outcome and patients satisfaction. There is need for health care

givers to continue and improve on aspects of care that gives patients satisfaction and discourage those that make the patients dissatisfied.

Conflict of Interest

Not available

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