

EVALUATION OF ANTEPARTUM HEMORRHAGE AND ITS ASSOCIATED RISK FACTORS AT A TERTIARY CARE HOSPITAL

Dr. Lata Mehta¹, Dr. Kuldeep Wagh^{2*}

1. Assistant Professor 2. Associate Professor, Department of Obstetrics and Gynaecology, Pacific Medical College & Hospital, Bhillo ka Bedla, Udaipur, India

*Corresponding author – Dr. Kuldeep Wagh

Email id – drkuldeepwagh@gmail.com

Received:14/01/2020

Revised:01/02/2020

Accepted:05/02/2020

ABSTRACT

Background: Antepartum hemorrhage (APH) accounts for a major cause of maternal morbidity and mortality all around the globe. Antepartum hemorrhage is defined as bleeding from Or into the genital tract, after 24 weeks Of pregnancy and prior to the birth of the baby. **Material & Methods:** The present prospective study was conducted at the department of obstetrics and gynecology of our tertiary care hospital. Details of the Patients who were presenting at 28 weeks of gestational age and above with antepartum haemorrhage were recorded. 50 patients of gestational age and above with bleeding per vagina were enrolled in the present study. **Results:** In the present study, on the basis of risk factors and common etiology/ cause of the antepartum hemorrhage, the most common etiology reported was pregnancy-induced hypertension which was found in 28 (56%) of the cases. The previous history of the cesarian section was reported in 23 (46%) pregnant women which was followed by the previous history of abortions and curettage reported in 7 (14%) pregnant women. Multifetal gestation was reported in 1 (2%) cases of antepartum hemorrhage. History of abdominal trauma present among 1 (2%) of pregnant women. Some other causes are Cervical ectropion, vaginal infection, Placental edge bleed, etc which were found in about 5 (10%) of cases. **Conclusion:** we found that hypertension and a previous history of abortions are the most common risk factors for APH. Early diagnoses and timely referral to the facility, blood transfusion and, surgically controlling heamorrhage can decrease maternal morbidity.

Keywords: Antepartum hemorrhage, Abruptio placenta, placenta previa.

INTRODUCTION

Antepartum hemorrhage (APH) accounts for the major cause of maternal mortality all around the globe and is also reported among the most common cause of maternal mortality worldwide and also in the Asian continent (1). Antepartum hemorrhage is defined as bleeding from or into the genital tract, after 24 weeks of pregnancy and prior to the birth of the baby. Antepartum hemorrhage is among the most common direct cause of maternal mortality and as well as maternal morbidity in India, reported among various researches and accounts for the major cause of maternal deaths (2). It has been reported in many previous studies that out of the total maternal deaths

from Antepartum hemorrhage half of them were caused by avoidable risk factors (3).

In the early prevention and management of Antepartum hemorrhage, it is mandatory to control maternal mortality (4). The abruptio placenta (40%), placenta previa (20%), and lower genital tract lesions (5%) were reportedly the most common causes of Antepartum hemorrhage in the Indian population. Abruptio placenta is described as premature separation of the normally situated placenta from the uterine wall that leads to bleeding into the decidua basalis which results in placental separation. Further, the hematoma formation may

add to the separation of the placenta from the uterine wall and impede the foetal blood supply. However, the degree of separation of the placenta determines the impact on the foetus (5).

Placenta praevia is described as a placenta that is situated wholly or partly at the lower uterine segment and clinically the internal OS was covered partially or completely by the placenta. However, the prevalence of clinically significant placenta praevia is reported to be .4%-.5% in previous studies (6). There were various associated risk factors were reported in previous studies regarding the etiology of abruptio placenta and placenta previa. Hence, the present study was conducted to assess and evaluate the burden of antepartum hemorrhage and its associated risk factors at our tertiary care hospital.

MATERIALS & METHODS

The present prospective study was conducted at the Department of obstetrics and gynecology of our hospital. Details of the patients who were presenting at 28 weeks of gestational age and above with antepartum hemorrhage were recorded. 50 patients of gestational age 28 weeks and above with a history of bleeding from the vagina were enrolled in the present study.

The present prospective study was conducted at the Department of Obstetrics and Gynecology of our tertiary care hospital. The study duration was of one year from January 2019 to December 2019. A sample size of 50 was calculated at a 95% confidence interval at a 10% acceptable margin of error. Details of the Patients who were presenting at 28 weeks of gestational age and above with antepartum haemorrhage were recorded. 50 patients of gestational age and above with bleeding per vagina were enrolled in the present study. The diagnosis was made based on clinical examination, history, and ultrasonographic findings. Further, the enrolled patients were assessed and diagnosed as cases of placenta previa (PP), abruptio placenta (AP), or other causes. Clearance from Institutional Ethics Committee was taken before the start of the study. Written informed consent was taken from each study participant.

The data were collected by predesigned, multiple response types of questionnaire from each pregnant woman along with general physical and clinical examination. Data analysis was carried out using SPSS v22. All tests were done at an alpha (level significance) of 5%; means a significant association was present if the p-value was less than 0.05.

RESULTS

In the present study, a total of 50 pregnant women who had antepartum hemorrhage were enrolled and the study procedure was explained. In our study the patients were aged from 20 to 40 years, the mean age of the enrolled pregnant women was 28.45 ± 4.76 years. Those mothers whose age was in the range of 31 to 40 were more likely to present with antepartum hemorrhage as compared to mothers in the age group of 21 to 30 years. Out of the total, the majority of pregnant women were primigravida 24 (48%) and 11 (22%) of pregnant women were gravida 2 and 30% of pregnant women were gravida 3 and above. Out of the total study participants, 18 (36%) cases were booked cases and 32 (64%) cases were unbooked. There was no maternal mortality reported in the present study. (Table 1)

Table 1: Distribution of study participants according to study parameters.

Parameters		No. of cases
Age (years)	21-30	17 (34%)
	31-40	33 (66%)
Gravid status	Primigravida	24 (48%)
	Gravida 2	11 (22%)
	Gravida 3 and above	15 (30%)
Booked/ unbooked cases	Booked	18 (36%)
	Unbooked	32 (64%)

In the present study, on the basis of risk factors and common etiology/ cause of the antepartum hemorrhage, the most common etiology reported was pregnancy-induced hypertension which was found in 28 (56%) of the cases. The previous history of the cesarian section was reported in 23 (46%) pregnant women which was followed by the previous history of abortions and curettage reported in 7 (14%) pregnant women. Multifetal gestation was reported in 1 (2%) cases of antepartum hemorrhage. History of abdominal trauma present among 1 (2%) of pregnant women. Some other causes are Cervical ectropion, vaginal infection, Placental edge bleed, etc which were found in about 5 (10%) of cases. (Table 2)

Table 2: Distribution of study participants based upon risk factors and causes of APH.

Risk factors	No. of cases
PIH	28 (56%)
Previous history of cesarian section	23 (46%)
History of previous abortions and curettage	7 (14%)
Multifetal gestation	1 (2%)
History of abdominal trauma	1 (2%)
Other causes (Cervical ectropion, vaginal infection, Placental edge bleed, etc	5 (10%)

DISCUSSION

In the present study, a total of 50 pregnant women who had antepartum hemorrhage were enrolled and the study procedure was explained. In our study the patients were aged from 20 to 39 years, the mean age of the enrolled pregnant women was 28.45 ± 4.76 years. There were no pregnant women in the present study aged less than 18 years of age. Out of the total,

the majority of pregnant women were primigravida 48% and 22% of pregnant women were gravida 2 and 30% of pregnant women were gravida 3 and above. Similar results were obtained in a study conducted by Kulkarni AR et al among 100 cases of antepartum hemorrhage and reported similar findings to the present study among the majority of pregnant women who had antepartum hemorrhage (7). Similar results were obtained in a study conducted by J I Ikechebelu et al among 3565 deliveries and 59 cases of placenta praevia and reported similar findings to the present study among a majority of pregnant women (8).

Out of the total study participants, 36% of cases were booked cases and 64% cases were unbooked. There was no maternal mortality reported in the present study. Similar results were obtained in a study conducted by Adekanle D et al among cases of antepartum hemorrhage and reported similar findings to the present study among the majority of pregnant women who had antepartum hemorrhage (9). Similar results were obtained in a study conducted by P Tyagi et al among 100 cases of antepartum hemorrhage (10).

In the present study, on the basis of risk factors and common etiology/ cause of the antepartum hemorrhage, the most common etiology reported for the antepartum hemorrhage was pregnancy-induced hypertension which was found in 56% of the cases. The previous history of the cesarian section was reported in 46% of pregnant women which was followed by the previous history of abortions and curettage reported in 14% of pregnant women. Multifetal gestation was reported in 2% of cases of antepartum hemorrhage. History of abdominal trauma present among 2% of pregnant women. Some other causes are Cervical ectropion, vaginal infection, Placental edge bleed, etc which were found in about 5 (10%) of cases. Similar results were obtained in a study conducted by Kedar S et al among 131 cases of antepartum hemorrhage and reported similar findings to the present study among the majority of pregnant women who had antepartum hemorrhage (11). Similar results were obtained in a study conducted by Samal S et al among 218 cases of antepartum hemorrhage and reported similar

findings to the present study among the majority of pregnant women who had antepartum hemorrhage (12). Similar results were obtained in a study conducted by Nasreen F et al among cases of antepartum hemorrhage and reported similar findings to the present study among the majority of pregnant women who had antepartum hemorrhage (13).

CONCLUSION

We concluded from the present study that Antepartum haemorrhage is a common cause of maternal morbidity. We found that Pregnancy-induced hypertension, abdominal trauma, previous LSCS, previous abortion, history of curettage, Multifocal pregnancy were risk factors of antepartum hemorrhage. But pregnancy-induced hypertension suggesting PIH is one of the major risk factors. hypertension and multiparty are the most common risk factors for APH. Early diagnoses and timely referral to the facility, blood transfusion and, surgically controlling haemorrhage can decrease maternal morbidity.

REFERENCES

1. Fan D, Wu S, Liu L, Xia Q, Wang W, Guo X, et al. Prevalence of antepartum hemorrhage in women with placenta previa: A systematic review and meta-analysis. *Sci Rep* [Internet]. 2017 Jan 9;7. Available from: [/pmc/articles/PMC5220286/](https://pubmed.ncbi.nlm.nih.gov/29493960/)
2. Takai I, Sayyadi B, Galadanci H. Antepartum hemorrhage: A retrospective analysis from a northern Nigerian teaching hospital. *Int J Appl Basic Med Res* [Internet]. 2017;7(2):112. Available from: [/pmc/articles/PMC5441258/](https://pubmed.ncbi.nlm.nih.gov/29493960/)
3. Dibaba B, Edosa D, Hajure M, Gebre G. Risk factors of antepartum hemorrhage among mothers who gave birth at Suhul general hospital, 2016: A case-control study. *J Multidiscip Healthc* [Internet]. 2021 Feb 4;14:271–8. Available from: [http://doi.org/10.2147/JMDH.S269744](https://doi.org/10.2147/JMDH.S269744)
4. Bhandiwad A, Bhandiwad AA. A STUDY OF MATERNAL AND FETAL OUTCOME IN ANTEPARTUM HAEMORRHAGE. *J Evid Based Med Healthc*. 2014 Aug 13;1(6):406–27.
5. Schmidt P, Raines DA. Placental Abruption (Abruptio Placentae) [Internet]. *StatPearls*. StatPearls Publishing; 2018. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/29493960>
6. Merriam A, D’Alton ME. Placenta previa. In: *Obstetric Imaging: Fetal Diagnosis and Care*, 2nd Edition [Internet]. Elsevier; 2017. p. 455–458.e1. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK539818/>
7. Ethirajan S, Ramasamy P, Manoharan S. A Study of Antepartum Haemorrhage and Its Maternal and Neonatal Outcome At Tertiary Care Hospital. *Glob J Res Anal*. 2021;10(6):12–3.
8. Ikechebelu JI, Onwusulu DN. Placenta praevia: review of clinical presentation and management in a Nigerian teaching hospital. *Niger J Med* [Internet]. 2007;16(1):61–4. Available from: <https://pubmed.ncbi.nlm.nih.gov/17563971/>
9. A AD. Ante-partum haemorrhage and pregnancy outcome in LAUTECH Teaching Hospital, southwestern Nigeria [Internet]. Vol. 2, *Journal of Medicine and Medical Sciences*. Longdom Publishing; 2011 Dec. Available from: <https://www.interestjournals.org/abstract/antepartum-haemorrhage-and-pregnancy-outcome-in-lautech-teaching-hospital-southwestern-nigeria-18061.html>
10. Tyagi P, Yadav N, Sinha P, Gupta U. Study of antepartum haemorrhage and its maternal and perinatal outcome. *Int J Reprod Contraception, Obstet Gynecol* [Internet]. 2016 Dec 14;5(11):3972–7. Available from: <http://dx.doi.org/10.18203/2320-1770.ijrcog20163873>
11. Kedar K, Uikey P, Pawar A, Choudhary A. Maternal and fetal outcome in antepartum haemorrhage: a study at tertiary care hospital. *Int J Reprod Contraception, Obstet Gynecol* [Internet]. 2016 Jan 4;5(5):1386–91. Available from: <http://dx.doi.org/10.18203/2320-1770.ijrcog20161291>
12. Samal SK, Rathod S, Rani R, Ghose S. Maternal and perinatal outcomes in cases of antepartum haemorrhage: a 3-year observational study in a tertiary care hospital. *Int J Reprod Contraception, Obstet Gynecol* [Internet]. 2017 Feb

19;6(3):1025. Available from:
<http://dx.doi.org/10.18203/2320-1770.ijrcog20170578>

13. Nasreen F. Incidence, Causes and outcome of placenta previa. J Postgrad Med Inst (Peshawar - Pakistan) [Internet]. 2003;17(1). Available from: <https://jpmi.org.pk/index.php/jpmi/article/view/809>

How to cite this article: Mehta L.Wagh K., Evaluation of antepartum hemorrhage and its associated risk factors at a tertiary care hospital. Int.J.Med.Sci.Educ 2020;7(1):90-94