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Management of Retroplacental Hematoma at the Gynecology and Obstetrics Department of the Ignace Deen University Hospital in Guinea in 2025

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Abstract

Introduction: Placental abruption (PAU) is a cause of third-trimester bleeding in pregnancy and a major cause of stillbirth. Our study aims to describe the epidemiological, clinical, management, and prognostic characteristics of patients with placental abruption. **Methodology:** This was a prospective descriptive study conducted in the Obstetrics and Gynecology Department of the Ignace Deen University Hospital over a 7-month period from January 1st to July 31st, 2025. The variables studied were: epidemiology, clinical presentation, management, and prognosis. SPSS 21.0 software was used for the analysis, and the data were presented as proportions, means, and standard deviations. **Results:** During the study period, 4643 deliveries were carried out, of which 176 cases of HRP, representing a frequency of 3.79%, the median age was 28 years, nulliparous (27.27%), evacuated (68.75%), one hundred fifty-seven (89.20%) had delivered by cesarean section, nineteen (10.80%) by vaginal delivery. The fetal prognosis was marked by a high stillbirth rate (86.36%), and perinatal morbidity was dominated by prematurity in 10.12%. Maternal morbidity was due to anemia (60.79%), one hundred and seventy-three (65.91%) received blood transfusions, and the maternal mortality rate was 3.41%. **Conclusion:** HRP, a medical-obstetrical emergency par excellence, remains a public health problem; early diagnosis and management would improve the maternal-fetal prognosis.

Keywords

Management, Retroplacental Hematoma, Guinea

1. Introduction

Placental abruption (PAU), also known as placental abruption, is a pathological condition resulting from accidental complete or incomplete placental detachment, leading to the interruption of maternal-fetal exchange [1] [2]. It is one of the causes of third-trimester hemorrhages in pregnancy and a major cause of stillbirth. Indeed, placental abruption constitutes a major emergency in obstetric pathology, requiring both medical resuscitation and treatment [3]. It is a concerning condition due to its frequency and severity [4].

It is a significant cause of maternal and perinatal morbidity and mortality in public health facilities where the availability of emergency obstetric care, intensive care units, and blood products is sometimes lacking [5]. The difficulties associated with its management in our context and the high rate of maternal and perineal morbidity and mortality motivated this study, which aimed to describe the management and maternal-fetal prognosis of retroplacental hematoma in the Gynecology-Obstetrics Department of the Ignace Deen University Hospital in Conakry.

2. Methods

2.1. Setting

Our study took place in the Gynecology-Obstetrics department of the Ignace Deen University Hospital in Conakry.

2.2. Type and Period of Study

This was a descriptive study with prospective recruitment over 7 months from January 1st to July 31st, 2025. The variables studied were: epidemiology, clinical (based on the Sher classification divided into three: grade I. subclinical, the diagnosis is retrospective after examination of the placenta; grade II blackish metrorrhagia, more or less retracted uterus, live child, grade IIIa metrorrhagia, retracted uterus, dead child without coagulation disorder. Grade IIIb with coagulation disorder); medical management (with tranexamic acid, misoprostol was reserved in case of postpartum hemorrhage associated with blood transfusion, on the obstetric point, normal delivery is carried out in case of advanced labor, stable condition of the mother, cesarean section was accepted in case of significant hemorrhage, woman not in labor, fetus alive or dead for maternal rescue), and prognosis.

SPSS 21.0 software was used for the analysis; the data were presented as proportions, means, and standard deviations.

2.3. Study Population

It consisted of pregnant and parturient women receiving care for retroplacental hematoma carrying a single or multiple pregnancy in the department during the study period.

Patients included in the study were those in whom the diagnosis of HRP was made by clinical examination.

Patients with hemorrhagic symptoms other than placental abruption were excluded.

2.4. Sampling

We carried out an exhaustive recruitment covering all cases meeting the inclusion criteria defined above.

Our variables were epidemiological, clinical, management and prognostic.

2.5. Data Entry and Analysis

The data were entered using Excel software from the Office 2016 suite and analyzed using SPSS 21.0 software. For quantitative variables, we calculated the mean and standard deviation; proportions were calculated for qualitative variables.

3. Results

3.1. Epidemiological Characteristics

Frequency: we collected 176 cases of HRP out of a total of 4643 deliveries, representing a frequency of 3.79% (Table 1).

Table 1. Epidemiological characteristics.

Epidemiological aspects	Staff	Percentage
Age (in years)		
≤20	22	12.50
21 to 25	52	29.55
26 to 30	41	23.30
31 to 35	37	21.02
≥36	24	13.64
Average: 27.74 ± 6.08 years; Median: 28 years; Range: 16 to 40 years		
Ethnic group		
Soussou	33	18.75
Fulani	65	36.93
Malinke	48	27.27
Forestry	17	9.66
Others	13	7.39
Occupation		
Housewife	59	33.52
Liberal Profession	75	42.61
Employee	25	14.20
Student	17	9.66

Continued

Marital status		
Bride	167	94.89
Bachelor	9	5.11
Education level		
Not enrolled in school	78	44.32
Primary	29	16.48
Secondary	37	21.02
Higher or professional	32	18.18
Parity		
Nulliparous	48	27.27
First-time mother	39	22.16
Paucipare	46	26.14
Multiparous	37	21.02
Large multiparous woman	6	3.41

3.2. Clinical Aspects

Admission method: more than 6 out of 10 women were evacuated from secondary health facilities in Conakry and surrounding prefectures (68.75%).

Means of transport: in the majority of cases, patients were admitted in a taxi or a personal car (73.30%).

Origin: more than 7 out of 10 patients (72.16%) came from a health facility compared to 27.84% from their home.

Medical and obstetric history: Chronic hypertension (7.95%) and diabetes (1.70%) were the most frequently found medical histories and obstetric histories were marked by severe pre-eclampsia (38.07%), intrauterine fetal death (34.04%), placenta previa (31.25%) and placental abruption (25.57%) (Table 2 and Table 3).

Table 2. Distribution of patients according to reasons for admission.

Reasons for admission	Staff	Percentage
Genital bleeding	174	98.86
Abdominal pain	143	81.25
Dizziness	61	34.66
Physical asthenia	35	19.89
Headaches	45	25.57
Epigastric pain	22	12.50
Absence of MAF	24	13.64
Blurred vision	4	2.27
OMI	8	4.55

Table 3. Distribution of patients according to signs at admission.

Signs of admission	Staff	Percentage
Uterine hypertonia with relaxation	26	14.77
Uterine hypertonia without relaxation	146	82.95
Hemorrhage	158	89.77
Pallor	23	13.07
Signs of shock	30	17.05
Types of shock signs		
Hustle	19	10.80
Hypotension arteriovenous	15	8.52
Pulse weak and thready	15	8.52
Sweating and cold extremities	21	11.93

Gestational age at onset: the vast majority of patients had a gestational age equal to or less than 32 weeks (39.77%) against 34.66% who were between 33 and 36 weeks and more than 37 weeks for 25.57% of patients.

Number of ANC visits: we recorded 76 cases of no ANC visit (43.18%), 45 patients having only one ANC visit (25.56%), 22.72% had 2 ANC visits against 10 cases of 3 ANC visits (5.56%) and 4 or more ANC visits (1.13%).

Evolution: in relation to the evolution of the symptomatology, we recorded an evolution of less than or equal to 6 hours in 72.73% against 27.27% of more than 6 hours.

Sher grade: grade IIIa was the most frequent (80.68%), followed by grade II (12.50%), grade IIIb (4.55%) and 1.14% for grade I (Table 4).

Table 4. Distribution of patients according to the type of care provided.

Support	Staff	Percentage
Delivery route		
Cesarean section	157	89.20
Low route	19	10.80
Artificial rupture of membranes	11	6.25
Induction	11	6.25
Episiotomy	5	2.84
Blood transfusion	116	65.91
Transfusion of FFP	36	20.45
Tranexamic acid	57	32.39
Misoprostol	70	39.77

3.3. Prognosis

Maternal: Maternal morbidity was marked by decompensated anemia (60.79%), acute renal failure (12.50%), disseminated intravascular coagulation (DIC) (10.23%), and HELLP syndrome (4.55%). The mortality rate was 3.41%.

Perinatal: Perinatal morbidity was dominated by prematurity (10.12%), and the mortality rate was 86.36% for all premature or term fetuses.

3.4. Limitations of the Study

This was a descriptive study, which did not allow for the analysis of variables such as referral status, Sher grade, gestational age, admission delay, single-center nature, number of ANC visits, which are limiting factors; an analytical study would be quite possible to analyze the different variables.

The monitoring of mothers and newborns was limited to the early neonatal period, *i.e.*, one week.

4. Discussion

4.1. Epidemiological Aspects

Placental abruption (PAP) is a serious obstetric emergency that can jeopardize not only the mother's but also the fetal prognosis. Its frequency is not negligible in the African context. In our series, we recorded a frequency of 3.79%. This frequency varies across studies and from one region to another. Frequency ranging from 1.54% to 6.05% has been reported in the literature [3] [5]. However, some authors reported significantly lower frequencies than ours. This proportion found in our study could be explained by the fact that, for the past 10 years, our study site has been the only level III maternity hospital in the city of Conakry, receiving most obstetric emergencies from peripheral maternity hospitals in the city and those in some surrounding prefectures.

Age is considered by some authors as a risk factor for retroplacental hematoma but only in the white population [6].

The mean age of the patients was 27.74 ± 6.08. A similar observation was reported by Ouédraogo I *et al.* [7] in their study carried out in the same department in 2021. This finding could be explained by the fact that this is an age group where genital activity is more significant.

This study revealed that the patients were predominantly married (94.89%) and self-employed (42.61%). This observation is consistent with those of Ouédraogo I *et al.* [7]. Women with no formal education were the most frequently encountered group in this study, representing 44.32%. Our findings align with those of several authors reporting a predominance of retroplacental hematoma among uneducated women [5] [7] [8]. This high rate of uneducated women observed in our study could be explained by the low school enrollment rate of girls in Guinea, as reported in the 2018 DHS V [9].

Nulliparous women were the most numerous in our sample, representing a proportion of 27.27%. A predominance of this parity layer was mentioned in the

study by Ngbale, N.R *et al.* with a higher proportion than ours, namely 25.3% [10].

4.2. Clinical Aspects

Obstetric evacuation was the most frequent mode of admission (68.75%). We concur with Ouédraogo I *et al.* [7] who reported a similar conclusion. Obstetric evacuation is a factor in poor maternal and perinatal prognosis in our developing country setting, representing the most frequent mode of admission for cases of third-trimester hemorrhage, including placental abruption.

Genital bleeding (98.86%) and abdominal pain (81.25%) were the most common reasons for consultation among our patients. This finding was consistent with several authors who reported metrorrhagia as the most frequent reason for consultation [3] [7]. Bleeding is a worrying sign that prompts patients to seek medical attention regardless of their level of education.

Regarding gestational age, nearly 4 out of 10 patients (39.77%) had a gestational age of 32 weeks or less. A predominance of term patients was reported in the series by Ngbale, N.R *et al.* [10] in 2025 in Côte d'Ivoire and Ali Z *et al.* [11] in 2024 in Niger.

The majority of patients in our series (43.18%) had not attended any prenatal consultations. This lack of access to care is often linked to these patients' failure to enroll in free health insurance.

Regarding the Sher classification, the majority of cases were classified as Sher grade IIIA (80.68%). This corroborates the findings of several other authors who reported grade IIIa as the most frequent grade, with respective proportions of 75.1% [12], 83.1% [3], and 74.1% [7]. Delays in seeking medical attention and poor quality of prenatal care could explain this situation.

4.3. Therapeutic Aspect

The patients received medical, obstetric, and surgical care. The most frequent mode of delivery was cesarean section (89.20%). Blood transfusions were administered to 65.91% of patients, 39.77% received misoprostol for postpartum hemorrhage prevention, and 32.39% received tranexamic acid. Cesarean section was reported as the most frequent mode of delivery in the labor described by Ngbale, N.R *et al.* [10]. A similar observation was found in the study by Ouédraogo I *et al.* [7].

The high cesarean section rate observed in our series could be explained by the poor clinical condition of the patients upon admission, and by the fact that this mode of delivery is the fastest way to evacuate the uterus, potentially improving maternal outcomes in a resource-limited country where access to blood products and other resuscitation resources remains difficult. In the series by Ouédraogo I *et al.* [7], a blood transfusion rate of 58.4% and the use of antihypertensives 15.7% were reported.

4.4. Prognostic Aspect

Maternal morbidity was dominated by decompensated anemia (60.79%), acute

renal failure (12.50%), disseminated intravascular coagulation (DIC) (10.23%), and HELLP syndrome (4.55%). A predominance of anemia in maternal morbidity was reported by some authors [3].

The maternal mortality rate was 3.41%. Maternal mortality rates of 3.9%, 2.4%, and 9.2% have been reported in the literature [3] [10] [13]. Delays in seeking medical attention, inadequate technical resources, limited access to blood products and derivatives to compensate for blood loss, and the poor clinical condition of the patients could explain these deaths in this series.

The perinatal prognosis remains poor in our setting, characterized by morbidity dominated by prematurity (10.12%) and a mortality rate of 86.36%. This finding is comparable to those of Thieba B *et al.* and Nayama *et al.* [3] [13], with rates of 85.9% and 84.0%, respectively. The high rate of grade IIIa and b placental abruption (85.1%) and the significant proportion of prematurity could explain this high perinatal mortality rate in our setting.

5. Conclusion

Retroplacental hematoma is a serious and frequent obstetric emergency in our setting. Management is multidisciplinary, with significant rates of maternal and perinatal morbidity and mortality. Rapid diagnosis and appropriate management of this condition and its complications could improve maternal and perinatal outcomes.

Ethical Approval and Consent to Participate in the Study

Ethical approval was obtained from the Faculty of Health Sciences and Techniques at Gamal Abdel Nasser University of Conakry. Informed consent was obtained from pregnant women admitted for retroplacental hematoma after they provided all necessary information regarding the study's objective, the potential risks and benefits of participation, and the rights of pregnant women in labor who received care in our department. These rights were respected at every stage of the study, as was confidentiality. All methods were performed in accordance with the relevant guidelines (Declaration of Helsinki) and regulations for this study.

Conflicts of Interest

There are no conflicts of interest regarding this work.

Authors' Contributions

All authors contributed to the completion of this work.

References

[1] Ananth, C.V., Berkowitz, G.S. and Savitz, D.A. (1999) Placental Abruption and Adverse Perinatal Outcomes. *JAMA*, **282**, 1646-1651. https://doi.org/10.1001/jama.282.17.1646

[2] Ananth, C.V., Elsasser, D.A., Kinzler, W.L., Peltier, M.R., Getahun, D., Leclerc, D., *et*

al. (2007) Polymorphisms in Methionine Synthase Reductase and Betaine-Homocysteine S-Methyltransferase Genes: Risk of Placental Abruption. *Molecular Genetics and Metabolism*, **91**, 104-110. https://doi.org/10.1016/j.ymgme.2007.02.004

[3] Thieba, B., Lankoande, J., Akotionga, M., *et al.* (2003) Abruptio Placentae: Epidemiological, Clinical and Prognosis Aspects about a 177 Case Series. *Gynécologie Obstétrique & Fertilité*, **31**, 429-433. https://www.sciencedirect.com/science/article/abs/pii/S1297958903001176?via%3Dihub

[4] Ngom, P.M., Edouard, F.M., Fatou, G.Y., Aya, S.M., Ndew, T.M., Amine, I.M., *et al.* (2022) Management and Maternal-Fetal Prognosis of Placental Abruption: A Retrospective Study of 130 Cases. *Open Journal of Obstetrics and Gynecology*, **12**, 590-598. https://doi.org/10.4236/ojog.2022.127051

[5] Thiam, O., Mbaye, M., Diouf, A.A., Touré, F.B., Gueye, M., Niang, M., Moreau, J.C., *et al.* (2014) Aspects épidémiologiques, pronostiques et thérapeutiques de l'hématome retro placentaire (HRP) dans une maternité de référence en zone rurale. *The Pan African Medical Journal*, **17**, Article No. 11. https://doi.org/10.11604/pamj.2014.17.11.3554

[6] Saftlas, A.F., Olson, D.R. and Atrash, H.K. (1991) National Trends in the Incidence of Abruption Placentae 1979-1987. *Obstetrics & Gynecology*, **78**, 1081-1086.

[7] Ouédraogo, I., Sawadogo, Y.A., Kain, D.P., Zamane, H., Sib, S.R., Kiemtore, S., et al. (2017) Placental Abruption in the Obstetrics and Gynecology Service of Regional Hospital Center of Ouahigouya: Epidemiological, Clinical Ant and Therapeutic Aspects about 89 Cases Collected from 1st January 2013 to 31st December 2015. *Open Journal of Obstetrics and Gynecology*, **7**, 86-94. https://doi.org/10.4236/ojog.2017.71010

[8] Tebeu, P.M., Nnomo, J.A., Tiyou, C.K., Obama, M.T.A., Kengne, F.G., *et al.* (2013) The Pattern of Abruption Placenta in Cameroon. *Medical Journal of Obstetrics and Gynecology*, **1**, Article 1015.

[9] Ministry of Planning and Economic Development, Conakry, Guinea (2018) Demographic and Health Survey with Multiple Indicator Cluster Survey (DHS-MICS, 2018). National Institute of Statistics, Conakry; Measure DHS; ICF International, Claverton, Maryland, USA. 40-41. https://www.Dhsprogram.com

[10] ONgbale, N.R., Kogboma-Wongo, G.R.D.L., Koirokpi, A., *et al.* (2020) Materno-Fetal Prognosis of Retro-Placental Hematoma at the Centre Hospitalier Universitaire Communautaire. *Open Journal of Obstetrics and Gynecology*, **10**, 1351-1357. https://doi.org/10.4236/ojog.2020.10100124

[11] Ali, Z., Issoufou Harouna, B., Idé Amadou, H. and Sayo Djibo, A. (2024) Determinants of Retroplacental Hematoma at the Maradi Mother and Child Health Center, Niger: A Case-Control Study. *BMC Pregnancy and Childbirth*, **24**, Article No. 724. https://doi.org/10.1186/s12884-024-06927-9

[12] Biaye, B., Gassama, O., Gueye, M.D.N., Diallo, M., Niass, A., Cisse, M., *et al.* (2019) Epidemiology and Prognosis of Retroplacental Hematoma in a Maternity Ward at a Regional Hospital Center in Southern Senegal. *Open Journal of Obstetrics and Gynecology*, **9**, 149-157. https://doi.org/10.4236/ojog.2019.92016

[13] Nayama, M., Tamakloé-Azamesu, D., Garba, M., Idi, N., Djibril, B., Kamayé, M., *et al.* (2007) Hématome rétroplacentaire. Prise en charge dans une maternité de référence du Niger. Étude prospective à propos de 118 cas sur un an. *Gynécologie Obstétrique & Fertilité*, **35**, 975-981. https://doi.org/10.1016/j.gyobfe.2007.05.023