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The Third Trimester Bleeding at the Department of Obstetrics and Gynecology of the Teaching Hospital Souro Sanou of Bobo Dioulasso. About 105 Cases and Review of Literature

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Abstract

Objective: To learn the epidemiological, clinical, paraclinical, therapeutical aspects and prognosis of haemorrhage of the third trimester during pregnancy. **Methodology:** It is about a transversal and descriptive study, realized at the department of obstetrics and gynaecology from January 1st to June 30th 2020. Was included in the study any pregnant patient showing the third trimester bleeding (≥28 Weeks gestation) received for bleeding during our study period and has been taken in charge in our department. The parameters studied were on the socio-demographic characteristics, the clinical and para clinical aspects, the noted diagnosis, the therapeutic aspects, maternal and perinatal prognosis. The information was collected from an inquiry document, the clinical files, the register of delivery room and childbirth, surgery protocols. The type and the analysis of the data were done by the softwares Word, Excel 2013 and Epi Info version 7.2.3. **Results:** We registered 2159 deliveries and 105 cases of third trimester bleeding, so a frequency of 4.86%. The average age was 30.14 ± 6.57 [16 - 49 years old] and the average parity was 3 [0 - 10]. Married women represented 87.62% of all. They were in a bad condition in 41.90% of cases. Fetal heart-sound was absent in 65.76% of cases. The diagnosis checked was abruptio placenta, placenta previa and the uterus rupture. A blood transfusion of concentrated red blood cells Isogroup and Isorhesus was performed to 45.72% of cases. Caesarean section was performed in 54.29% of cases. Complications were observed in 74.28% of cases. The ma-

ternal lethality rate was 13.33% with a perinatal mortality of 74.77%. **Conclusion:** The third trimester bleeding is frequent in developing countries because of poor obstetric coverage in this country. The perinatal prognosis is often bad because of late diagnosis, difficult access to Health Center with adequate technical platforms, miss of blood products and miss of qualified staff to take in charge these emergencies.

Keywords

Bleeding, Third Trimester, Maternal and Perinatal Prognosis

1. Introduction

The third trimester bleeding constitutes a real problem of public health in developing countries. Seeing their frequency and their gravity according to the etiology they can engage the maternal and perinatal prognosis [1] [2] [3] [4]. In Burkina Faso, the introduction of free cares for pregnant women and children under 5 years old since 2016 contributed efficiently of taking care of the urgency situation of pregnant women with third trimester bleeding pregnancies. However, the situation remains a preoccupation due to the high number of maternal and perinatal deaths linked to the last third pregnancy haemorrhages.

We undertake a transversal study on all the third trimester bleeding pregnancies to learn the clinical, paraclinical, therapeutical aspects and prognoses of the third trimester haemorrhages in the maternity of the teaching hospital Souro Sanou in order to improve taking care of them.

2. Methods

It is about a prospective and descriptive study realized at the department of obstetrics and gynaecology on 105 cases of the third trimester bleeding pregnancies observed at the maternity of the Teaching Hospital Sanou Souro of Bobo-Dioulasso from January the 1st to June 30th 2020, on a period of 6 months.

Was included in the study any pregnancy above 28 Weeks gestation patient showing bleeding and has been taken in charge in our department during this period.

Was not included any pregnancy less than 28 Weeks gestation and presenting bleeding and being taken in charge in other health center.

The parameters studied were on the socio-demographic characteristics (age parity, study level, matrimonial status, profession, origin) the clinical and para clinical aspects when admitted, the noted diagnosis, the therapeutical aspects, maternal and perinatal prognostics and the stay time in hospital. The informations were collected from an inquiry document, the clinical files and surgery protocols. The type and the analysis of the data were done by the softwares Word and Epi Info.

3. Results

3.1. Epidemiology

- **Frequency**

From January 1st to June 30th 2020, we registered 2159 deliveries. During the same period we collected 105 cases of the third trimester bleeding pregnancies, or a frequency of 4.8%.

- **Socio-demographic characteristics**

They are summarized up in Table 1.

3.2. Clinical and Paraclinical Aspects

- **Reason for admission**

Table 2 below gives the patients repartition according to their reason for admission.

Table 1. Socio-demographic characteristics.

Parameters	Number	%
Age (years)		
15 - 19	3	4.76
20 - 29	42	40
30 - 3	47	44.77
≥40	10	10.47
Parity		
Nullipara	15	14.29
Primipara	15	14.9
Paucipara	31	20.52
Multipara	34	32.34
Great multipara	10	9.5
Study level		
none	61	58.10
Primary	60	58.10
Secondary	29	28.57
University	11	10.48
Profession		
housewife	81	78.2
trader	13	13.13
Pupil/student	5	5.71
Civil servant	3	2.86
Origin		
Urban area	41	39.05
Rural area	59	60.95

Table 2. Patients repartition according to their admission motif.

Reasons for admission	Number	%
Third trimester bleeding	35	33.34
Bleeding + uterus contractions	12	11.43
Abruptio placenta	33	31.42
Uterus rupture	10	9.52
Help syndrome	1	0.95
Placenta previa	14	13.34
Total	105	100

- **Clinical Data at Admission**

The general state was good in 41 cases, fair in 20 cases and bad in 44 cases. A state of hypovolemic shock was found in 29 cases.

- **Pregnancy Term**

The patients repartition according to the pregnancy term was the following:

- 28 - 33 Weeks gestation: 15 cases (14.29%).
- 34 - 36 Weeks gestation: 32 cases (30.47%).
- 37 - 41 Weeks gestation: 57 cases (54.29%).
- >41 Weeks gestation: 1 cases (0.95%).

- **Fetal State**

No fetal heart noises in 73 cases (65.76%) and normal [120 - 160] in 23 cases (20.72%) and we.

- **Obstetrical Ultrasound**

It has been done in urgency in 57.14% cases looking for a fetal vitality, a placenta insertion, and abruptio placenta.

3.3. Diagnosis Taken into Account

At the end of our clinical and paraclinical examinations, the following diagnoses were taken into account.

- Abruptio placenta: 46 cases (43.81%).
- Placenta previa: 34 cases (32.38%).
- Uterine rupture 25 cases (23.81%).

3.4. Therapeutic Aspects

- **Intensive Care Measures**

At the admission of 42 patients (40%) they benefited from oxygen therapy, 60 patients (45.57%), macromolecule perfusion. ISO isogroup red blood cell transfusion was carried out on 48 patients (45.72%). 10 patients received fresh frozen placement. The fight against infection with a triple antibiotic therapy (combination of amoxicillin and clavulanic acid, ceftriaxone, and metronidazole in perfusion) in 20 cases (19.05%).

- **Delivery Route**

Vaginal birth was done in 23 cases (26.6%) and 18 cases retro-placental hematoma and 5 cases of placenta previa.

- **Indication for Caesarean Section**

Table 3 below gives the repartition according to their indication for caesarean section.

- **Surgical Treatment**

The laparotomy for uterine rupture was carried out in 25 cases (23.81%). We made a conservative treatment in 18 cases and a hysterectomy in 7 cases (6.6%).

3.5. Maternal Et Perinatal Prognosis

The post delivery was simple in 27 cases (25.72%). Complications were noticed in 78 cases (74.28%) dominated by anemia, endometrite and parietal suppuration.

We registered 14 maternal deaths and a lethality of 13.33% (Table 4).

- **Perinatal Prognostic**

Out of a total of 105 pregnancies including 6 twins, we registered 82 stillborns, 29 live born babies (26.13%). Eighteen new born babies were transferred in neonatology for prematurity, neonatal sufferings and respiratory distress. Perinatal mortality was (74.77%).

- **Birth Weight**

The mean weight of new born babies were 2599, 14#74.29 grams with extreme 1200 and 4100 grams. Table 5 gives the repartition of new born babies according to their weights.

Table 3. Repartition of patients according to their caesarean indication.

Indication of caesasarean	Effectif	%
Haemorrhage placenta previa (maternal saving)	15	26.32
Abruptio placenta + with living baby	7	6.7
Abruptio placenta + with dead baby	13	12.38
Placenta covering	12	22.81
Placenta previa + acute fetal suffering	8	21.05
Placenta previa + transversal presentation	2	3.50
Total	57	100

Table 4. Maternal prognosis.

Maternal prognosis	Number	%
Good outcome	27	25.72
Complications	78	74.28
Anemia	64	60.95
Parietal suppuration	5	4.76
endometritis	9	8.57
Maternal death	14	13.33

Table 5. Repartition of the new born according to their weights.

Weights (grammes)	Number	%
<2500	40	36.04
2400 - 3500	55	49.55
3600 - 3999	13	11.71
≥4000	3	2.7
Total	111	100

- **APGAR Score**

  Table 6 gives the repartition of Apgar score at birth.

3.6. Length of Stay

The average length of hospital stay was 3 days with some extreme from 1 to 13 days.

4. Discussion

The frequency of third trimester bleedings in our series was 4.8%. Our frequency is largely superior than those reported at Mbongo [2] in Congo, Lankoande [1] in Burkina Faso and Nizar [5] in India that reported respectively 1.27%, 1.6% et 2.79%. It is inferior than that of Sheikh and al [6] that was that difference may be explained by the fact that our maternity is a last Center of Reference which received all the emergencies of the West region of Burkina Faso. The age of onset of the third trimester bleedings whatever the aetiology is in the genital activity period of women of 20 to 40 years in most studies [4] [5] [7] [8] [9]. The paucipara and multipara represented the majority of the patients in most of the published series [4] [9] [10] [11]. The main aetiologies of the third trimester bleeding pregnancies are dominated according to the literature data by placenta previa [2] [3] [5] [7] [8] [12] and the retro-placental hematoma [2] [3] [5] [7] [8] [11]. In our series and in most of our African series [2] [13] [14] [15] and in developing countries [16] [17] [18] and even in developed countries [19] [20] [21], the uterine rupture is a cause of the third trimester bleeding pregnancies. In developing countries it generally occurs during the pregnancy labour due to the poor quality of the labour surveillance. (**Figure 1** and **Figure 2**)

The aetiologies are dominated by fetal pelvic disproportion, obstructed presentation and the bad use of oxytocic. It is responsible of a great number of materno-fetal mortality.

Concerning the general state of our patients during admission was bad in 41.90% cases.

Lankoande in his series found a general bad state of his patients during their admission in 39.4% cases. This can be explained by the delay of the consultation and the precariousness of long-distance transportation to have access to the health structures.

Table 6. Repartition of Apgar score at birth.

Apgar score	1st minute	5th minute	10th minute
0	82	82	82
1 - 3	4	2	0
4 - 6	12	5	4
≥7	13	22	25

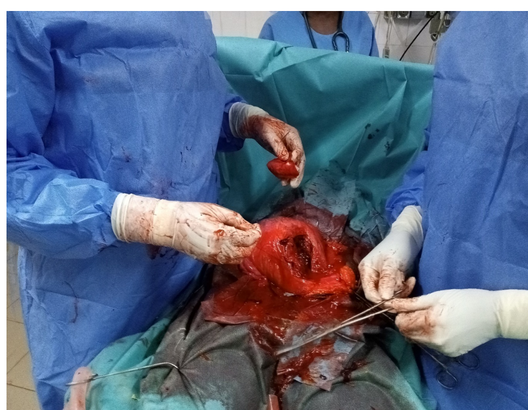

Figure 1. Cesarean section.

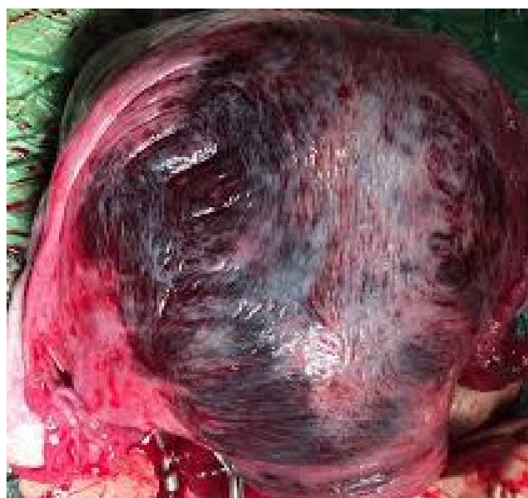

Figure 2. Abruption placenta.

Concerning the therapeutic aspects, the intensive care measures concerned 45.57% of our patients (oxygenation, crystalloid transfusion, transfusion of concentrated blood cells, fresh frozen plasma). Identic measures were observed in many studies on the third trimester bleeding pregnancies [1] [2] [4] [7] [9].

A triple antibiotic therapy was used to fight infection in cases of uterine rupture.

Concerning the way of delivery, vaginal birth was practiced in our study in 26.67% cases. Purohit [8] reported a rate of 32.5% and Nisar [5] in 43.3% cases.

We needed caesarean in our series in 54.29% cases. Mbongo [2] and Samal [7]

reported respectively a rate of caesarean 80.6% and 85.3% cases.

In the cases of uterine rupture, we carried out a haemostatic hysterectomy in 6.67%. Nisar [5] in 7.5% cases. Purohit [8] in 19.15% cases.

Maternal morbidity was mentioned in 74.28% cases in our study. The main complications were anaemia and infection. The same complications were noted with Samal [7] in 42.2% cases and Hemalatha [12] in 3.5% cases. The maternal mortality was 13.3% in our study, 16.4% with Lankoande [1] and 1.49% in Purohit [8] study. It was zero with Mbongo [2] and Samal [7].

According to the literature data, the third trimester bleeding pregnancies might be the causes of 2% to 20% of maternal deaths [22] [23].

Perinatal morbidity was noted in 16.21% in our study. The main causes were prematurity, respiratory distress and neonatal suffering. The prematurity was 39.8% and a weak birth weight of 45.9% in Mbongo [2] study.

Perinatal mortality is generally high in the series of developing countries. In our study it was 74.77%. It is more than the one reported by Mbongo [2], Kumar [3] and Purohit [8] which were respectively 28.7%, 32.17% and 43.28%.

5. Conclusion

The third trimester bleeding is frequent in developing countries because of poor obstetric coverage in these countries. The perinatal prognosis is often bad because of late diagnosis, difficult access to Health Center with adequate technical platforms, miss of blood products and miss of qualified staff to take in charge these emergencies.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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