

# SHER Grade IIb Placenta Abruptio Complicating Severe Superimposed Pre-Eclampsia at 19 WA: A Case Report

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## Abstract

The placenta abruptio is an extremely serious pathology which involves the maternal-fetal prognosis. We report the case of a 19-year-old patient who consulted for abdominopelvic pain associated with heavy vaginal bleeding on 19SA in a context of arterial hypertension. The symptomatology suddenly worsened with the onset of hemorrhagic shock, which prompted an emergency hysterotomy. The diagnosis of placenta abruptio grade III b of SHER was evoked. Uterine atony was objectified intraoperatively and uterine compression by the B-Lynch technique was performed. The evolution of the patient was favorable after a stay of 5 days in intensive care.

## Keywords

Added Preeclampsia, Placenta Abruptio, 19 Weeks, Uterine Plication

## 1. Clinical Case

It was Mrs. X aged 31, married without a job. She consulted the gynecological emergency department on July 3 at 10:50 a.m. for abdominal and pelvic pain associated with moderately heavy vaginal bleeding in a 19-week pregnancy.

She has G4P3EV3, previous pregnancies have been uneventful. The last childbirth was 3 years ago. There is an evocation of the notion of primipaternity or particular medical and surgical history.

The current pregnancy is unwanted but finally accepted, followed since the 15<sup>th</sup> week by a midwife. She benefited from a single contact. The prenatal biological assessment had been requested but not carried out. Blood pressure was

15/10 mmHg. Chronic hypertension had been evoked and treated with Alpha methyl Dopa 500 mg, 2 tablets per day. The ultrasound had been performed and revealed an evolving monofetal pregnancy of 14 weeks + 5 days.

The symptomatology would have started 6 hours before our consultation with the spontaneous onset of abdomino-pelvic pain of rapidly progressive intensity associated with minimal and blackish vaginal bleeding at the beginning. Faced with the aggravation of the vaginal becoming abundant mixed with blood clots, the patient consults the emergency department for investigation and management.

Functional signs were marked by:

- Abdominal pain is described as brutal, as a stabbing sensation, or in the form of a continuous cramp, very violent, sometimes moderate. The seat was median but sometimes also lateral, rapidly spreading to the lumbar fossae, the region dorsal or lateral. It was permanent a chronic pain.
- Blackish vaginal bleeding; variable abundance mixed with black clots.
- Positional vertigo.

General signs were:

- An anxious face, drawn features, a state of consciousness preserved with a Glasgow at 15/15;
- Moderately colored conjunctivae;
- A conjunctival pallor with cooling of the extremities and attitude of prostration;
- The pulse was 123 bpm;
- High blood pressure at the beginning at 193/117 and had dropped suddenly reflecting the state of shock.

Regarding the physical signs:

- The uterus was the site of internal bleeding;
- It was increased in volume, with a height measured at 22 cm;
- On auscultation, fetal heart sounds were absent;
- On vaginal examination, the lower segment, hard, woody and tense;
- The cervix was 2 cm dilated with a bulging water pocket;
- Examination with a speculum revealed blackish blood coming from the endocervix;
- On vaginal examination, the finger cot brings back blackish blood clots.

Examination of other devices was unremarkable.

In front of this table we thought of:

- A hemorrhagic low inserted placenta;
- A placenta abruptio on a probable term error;
- Late hemorrhagic abortion.

As part of the diagnostic assessment, an obstetric ultrasound had been performed and had highlighted a non-evolving monofetal pregnancy of 18 weeks + 6 days. The placenta was posteriorly inserted grade I with a large heterogeneous and hypoechoic retroplacental mass.

The diagnosis of retroplacental hematoma was retained.

The impact assessment carried out highlighted:

- Severe anemia at 5.3 g/dL, hematocrit 25.9%, thrombocytopenia at 78.000/mm<sup>3</sup>.
- TP at 100%, TCA at 30 sec.
- Urea at 8.27, creatinine at 329 µmol/L.
- AST at 201 UI/L, ALT at 96 UI/L.
- The fundus, cardiac and renal ultrasound were not performed.
- Urine dipstick: Protein 3+++.

We retained the diagnosis of superadded pre-eclampsia complicated by placenta abruptio and HELLP syndrome.

The purpose of the support was:

- To evacuate the uterus;
- Correct anemia and thrombocytopenia;
- Correct kidney function and liver function.

The means were:

- Resuscitation: labile blood products, colloids, crystalloids;
- Medical: antihypertensives, anti-edematous;
- Obstetrics: vaginal delivery;
- Surgical: hysterotomy.

## 2. Indication

Faced with the patient's clinical condition, which deteriorated rapidly, the patient urgently had a hysterotomy with uterine compression by the B-LYNCH method. The hysterotomy had allowed the extraction of a stillborn male weighing 400 g. examination of the placenta revealed a hematoma that had not been weighed and a 6cm cup. She subsequently benefited from hospitalization in the intensive care unit where she received:

- Transfusion of 5 erythrocyte pellets, 2 fresh frozen plasmas, 2 platelet concentrates;
- Dexamethasone for the cure of Hellp Syndrome;
- Hydration at 3 L per day;
- Oxytocin, misoprostol;
- Analgesics;
- Lovenox, compression stockings.
- Transfusion of 5 erythrocyte pellets, 2 fresh frozen plasmas, 2 platelet concentrates;
- Dexamethasone for the cure of Hellp Syndrome;
- Hydration at 3 L per day;
- Oxytocin, misoprostol;
- Analgesics;
- Lovenox, compression stockings.

The evolution after 5 days of treatment was clinically favorable marked by:

- Clinically:

Amendment of functional signs.

TA: 142/87, Fc 88, Diuresis 0.7 cc/kg/h BU+.

A good uterine globe, minimal sero-hematic lochia, absence of signs of thrombophlebitis.

- Biologically.

Hb: 8.9 g/dL, Plt: 116,000/mm<sup>3</sup>, AST: 60 IU/L, ALT: 46 IU/L, urea: 15.17 mmol/L, creatinine: 548.8 mmol/L.

The patient was referred to the nephrology and cardiology department for the continuation of the care.

### 3. Discussion

#### 3.1. Problem

The placenta abruptio is an acute, paroxysmal accident constituting a real surgical emergency which involves the vital prognosis of the mother and that of the fetus. It is a common condition in our practice, it complicates 0.25% to 0.4% of pregnancies [1]. Thieba *et al.* [2] objectified a prevalence of 9.6 per 1000 deliveries. Its frequency is difficult to estimate because it depends on the population studied and the diagnostic criteria used by the authors [3]. Nayama [4] found a higher prevalence of 3.6% with a peak in occurrence during the rainy season.

The situation that we present however poses a diagnostic problem, given the age of onset of the complication such as placenta abruptio and a problem of management, in particular the route of delivery, because the cesarean section was chosen because of the deterioration of the general condition of the patient.

#### 3.2. Epidemiology

The age of our patient was 31 years old. This is an age found in several series of studies. Indeed, Thiam [5] noted an age whose range was around 29 years, while Nayama [4] presented parturients with an average age of 31 years. The period of sexual activity can justify the presence of this condition at this precise age.

#### 3.3. Etiopathogenesis

The most classic circumstance for the occurrence of placenta abruptio is that of hypertension pregnancy and more particularly pre-eclampsia. Indeed she is found in 40% to 50% of PNIPD. In our study, we note hypertension discovered at 14 weeks but without notion of primipaternity or particular surgical history. Placenta abruptio was associated with preeclampsia in 47 patients (39.8%), eclampsia in four patients (3.4%), placenta previa in 14 others (11.7%) [4]. Guenec *et al.* [6] found that patients had antihypertensive treatment (17%) during pregnancy. Hypertension during pregnancy makes the bed of HRP.

The WHO recommends at least 8 antenatal contacts for a pregnant woman during the pregnancy. Poor prenatal consultation is a predisposing factor for pregnancy to premature placental abruption [7]. At 19 weeks of pregnancy, our

patient was to benefit from 2 contacts, but only one was noted. Patients who were not or poorly monitored represented 70.8% at Rakotozanany [8] and in 29.2% of cases, the number of PNCs corresponded to the WHO standard which is 8. Thieba *et al.* [2] showed that 61.2% of PRH cases have fewer than three antenatal visits. This could be explained by the low socio-economic level.

A well-monitored pregnancy could reduce the risk of aHRP, also allows rapid management before any complications dramatic events, in order to reduce the maternal death rate.

### 3.4. Pathological Anatomy and Classification of SHER

The SHER classification is the one used in our service. The patient we are presenting had placenta abruptio grade IIIB. This observation is the same for Abdelkader [9] who noted 86.5% grade III of SHER. On admission, 83.1% of patients presented with SHER grade 3, *i.e.* 147 cases. Grades 1 and 2 were noted in 16.9% of cases [2]. Diagnosis and emergency management can make it possible to catch up with HRP grade II of SHER.

### 3.5. Diagnostic Aspects

The HRP is unpredictable, it has a wide spectrum of clinical translation, ranging from the absence of clinical signs to the massive form with fetal death and jeopardizing the maternal vital prognosis. Its classic form combines vaginal bleeding of blackish blood, brutal and intense abdominal pain and uterine contraction. In acute forms, imaging has room only for the detection of cardiac activity or the elimination of placenta previa. It thus finds its place in misleading forms [1]. Our study presented the classic triad of symptoms (vaginal bleeding, uterine hypertonia, absence of BDCF). Abdelkader [9] had evoked the diagnosis clinically in 97.9% of cases and fortuitously in 12.7% of cases. The classic triad was also found in several series (2.4). The diagnosis was based on clinical data in 65% of cases. The most common symptom on admission was abnormal fetal heart rate in 77% of cases [1].

These data show the complexity of the clinical forms of placenta abruptio where the diagnosis can only be easy in 1/3 of the cases.

The seriousness in our case was marked by the appearance of a disturbance of consciousness following a state of shock which gradually set in before the abundance of the haemorrhage. Biologically, we found severe anemia at 5.3 g/dL with thrombopenia, hepatic cytolysis which produced a picture of HELLP Syndrome associated with renal failure. Other authors [2] [4] [8] have also noted anemia and thrombocytopenia and Disseminated Intravascular Coagulation [8]. These complications arise from abnormalities of the placentation responsible for pre-eclampsia.

### 3.6. Support

The therapeutic management should be guided by the severity of the clinical

picture, the fetal state in utero, the gestational age at the time of diagnosis, the obstetrical conditions and the time elapsed since the installation of the placenta abruptio. Hysterotomy remains the primary route of delivery [1].

Thus, our work has made it possible to resort to medical management, through resuscitation measures with blood transfusion, followed by surgical management by hysterotomy. The decision to hysterotomy at 19 WA was guided by the abundance of bleeding and the progressive and inevitable onset of a state of shock. We also performed a uterine plication using the B-Lynch technique in front of the uterine atony that was beginning. The patient benefited from hospitalization in intensive care in view of the worsening of her state of health but also in accordance with the management of cases of severe pre-eclampsia in our structure. Our management was similar to that of Abdelkader [9] in whom a caesarean section was performed in 90.72% of cases. However, the management of uterine atony has been made by hysterectomies for hemostasis after failure of medical and surgical means of conservation. Rakotozanany *et al* also opted for conservative treatment (B-Lynch and triple ligation) 18.4% versus 15.80% of hemostasis hysterectomy.

### 3.7. Pronostic Aspects

We observed the installation of functional renal failure. The patient benefited from a stay in intensive care. His condition gradually improved after 5 days in intensive care. We recorded a fetal death in utero. Maternal morbidity was dominated by anemia and renal failure in Thiam [5]. Perinatal mortality was around 60% in relation to the severity of the clinical picture but also the importance of the low birth weight rate. Maternal prognosis was favorable in 80.41% of patients in Abdelkader's study [9], while he deplored 5.5% of deaths. It presented 74.22% stillbirths for 25.77% of living children. Rakotozanany *et al.* reported 6.25% maternal deaths for 91.7% in utero deaths.

The fetal prognosis depends on the gestational age, the mode of delivery, the uterine evacuation time, the birth weight and the severity of the retroplacental hematoma.

## 4. Conclusion

This was a 31-year-old patient with no particular history who had presented with abdomino-pelvic pain associated with vaginal bleeding over 19 weeks of amenorrhea. After clinical and paraclinical examination, the diagnosis of placenta abruptio was retained. The patient underwent a hysterotomy associated with uterine plication by the B-LYNCH method and then hospitalization in intensive care service.

### Interest of the Case

This clinical case allows us to emphatically affirm that:

- Faced with vaginal bleeding plus abdominal pain in pregnancy with hyper-

tension before 20 weeks of amenorrhea, the diagnosis of placenta abruptio should not be completely ruled out.

- The realization of the hysterotomy can be possible for a small gestational age as soon as the vital prognosis of the mother is at stake.

### Conflicts of Interest

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

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