

Massive Puerperal Hematoma: A Rare Form of Post-Partum Hemorrhage: A Case Report and a Review of the Literature

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Abstract: The puerperal hematoma is a rare but severe form of postpartum hemorrhage. Its management although not yet consensual, sometimes requires a skill and a special technical platform. We report the case of a 22-year-old patient who was referred to us for the management of an enormous puerperal hematoma occurring in the immediate postpartum, requiring both medical and surgical management. This complication reminds us of the importance of rigorous monitoring of postpartum patients but also of the need for careful hemostasis during the repair of perineal tears or episiotomy.

Keywords: Pelvic hematoma, puerperal hematoma, postpartum hemorrhage.

INTRODUCTION

Postpartum hemorrhage is the main complication of childbirth and the first cause of maternal mortality in the world, with involvement ranging from 18% to 50% death [1]. The most common etiologies are uterine atony, coagulopathies, retention of placental debris, fetal membranes, abnormalities of placental insertion abnormalities and lacerations of the genital tract [2]. The puerperal hematoma or "genital thrombus" is a particular form, because in most cases the bleeding is not externalized.

This pathology still poorly known, her definitions remain, still, quite vague [3]. Although some authors, such as Sénèze, differentiate the thrombus from the hematoma, for the most part this distinction has no place to be [4]. For Jacquetin, in the 1998 update of the CNGOF, the term thrombus is inadequate, and should be replaced by puerperal hematoma or perineal hematoma [5]. Puerperal hematoma is a rare but dangerous pathology because it puts the life of the mother in danger. Its incidence is 1/1000 deliveries [6]. We report in this article a case of post-partum expansive vulvar hematoma, which is treated surgically.

OBSERVATIONS

Mrs. HB aged 22, prim gravid and prim parous, was referred to us from a peripheral hospital for the management of a puerperal hematoma occupying the right lips. The parturient had given birth, four hours before, vaginally without episiotomy, without instrumental extraction, a new born female living and weight of 4000g according to the letter of transfer that was addressed to her. The patient presented two hours after his birth, an average abundance bleeding for which revisions uterine has been realized, and not recovered from uterine lesions, or placental debris or fetal membranes. The valve examination had no cervical or

vaginal lesions. In parallel, the patient received a perfusion of 5% glucose serum containing 15 IU oxytocin, at an unspecified rate. The evolution was marked by the appearance of a hematoma of the straight lips extending rapidly, as well as a state of hypovolemic shock. The patient was therefore sent to us in emergency, in a medical ambulance with a nurse anesthetist. Upon admission to our structure, a multidisciplinary treatment, associating anesthetists-intensive care and gynecologists-obstetricians, was set up. The patient was admitted directly to the operating room. The admission examination found a patient conscious but in poor general condition, hypotensive at 86/55 mmHg, tachycardia at 100 beats per minute and polyp etic at 24 cycles per minute. The conjunctivas were discolored. The abdomen was supple and depressible. Examination of immediate diapers has found a good uterine safety globe. Examination of the vulva found a right hemivulve reaching the inguinal fold outside, the large gluteal fold behind and the Venus mount coming forward. Inside, the mass drove back the small lip and protruded into the vaginal wall, with the flow of a small trickle of blood. Its anteroposterior diameter was 20 cm while the transverse diameter was 14 cm (Figure 1). The management was surgical combined with concomitant resuscitation of the patient's

hemodynamics. We performed an opening of the hematoma with evacuation of numerous thrombi (evaluated at about 1000 milliliters), located between the superficial and deep perineal planes, as well as active bleeding from the deep perineal arteries. After ensuring hemostasis, we performed a padding of the residual cavity (Figure 2), and set up an intravaginal compression (wick) field, which was kept for twelve hours. The patient received a blood transfusion per and

postoperatively three packed red blood cells, in front of its deep anemia with a hemoglobin at 6.2g / dl (counted at admission). The rest of the biological assessment was without abnormalities, except this anemia. The patient has been on treatment with antibiotics, analgesics, anti-oedematous and iron therapy orally. Postoperative and postpartum follow-up were good. The patient did not bleed with a good regression of the hematoma (Figure 3), and was declared outgoing on D4 postpartum.



Fig-1: Vulvar hematoma



Fig-2: appearance of the vulva after surgery



Fig-3: Appearance of the vulva at day 4 of the post-operative

DISCUSSION

Puerperal hematoma is a rare complication, it has been known since antiquity, and its management has considerably improved, such as postpartum hemorrhage. The mortality associated with this complication was estimated at 40% in 1927 and 8.3% in 1940 [7]; it is nowadays exceptional, and its incidence is estimated at 1/1000 deliveries [6]. However, puerperal hematomas remain a formidable and serious complication whose treatment is not codified.

Pathophysiology

Puerperal hematoma is a paravaginal, Para cervical or parametrical connective tissue detachment [6]. This blood collection tends to extend upwards in the base of the broad ligament and the retro-peritoneum. Vascular rupture is often venous in the thickness of the vagina with lamination of the wall and diffusion along the fasciae. It can also extend below the elevator muscle of the anus, distend the perineum and push back the rectum and anus. Vascular wounds within this detachment have no tendency to hemostasis, which can lead to disseminated intravascular coagulation very rapidly. The puerperal hematoma appears either

immediately or a few hours after delivery. Indeed, during labor, the fetal head, by compression, is a hemostatic means and tears are rarer [8]. Exceptionally, it can occur at the end of work, constituting, then, a dystocia element [9]. Two classifications of puerperal hematoma are known in the literature: an anatomical one (figure 4) which highlights three types of genital hematoma, the valvular hematoma corresponding to that presented by our patient, the vaginal hematoma and sub peritoneal hematoma. The second classification, rather chronological, describes an immediate hematoma that occurs just after delivery and that would be directly secondary to obstetric trauma, case of our patient, and a delayed hematoma occurring several days or even weeks after childbirth, which would probably be due to hyper pressure necrosis of the pelvic vessels [5]. Several risk factors can induce this complication. These include primiparity, instrumental extractions, fetal macrosomia, multiple pregnancies, bleeding disorders, or prolonged work ... [10] the factors found in our observation were prim parity and fetal macrosomia. We had no idea about the duration of the work and no known abnormalities of coagulation were found in our patient.

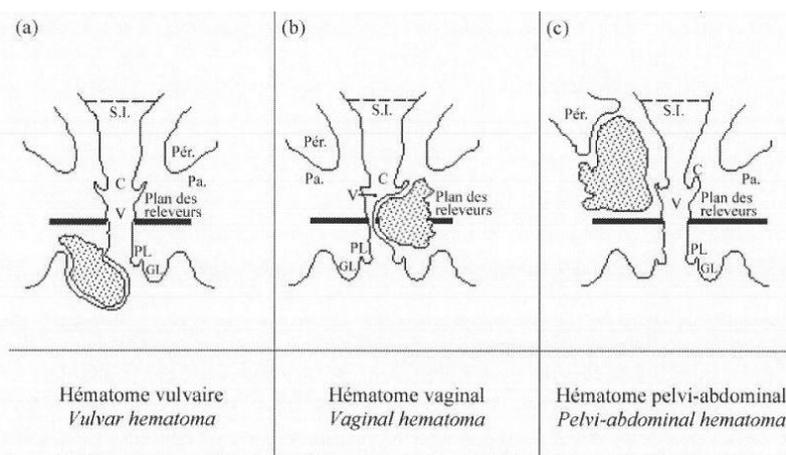


Fig-4: The anatomoclinical forms of puerperal hematoma according to Vybiral, C: col; Pa: parameter; Gal: big lip; per: peritoneum; PL: little lip; V: vagina, SI: lower segment [8]

Diagnosis

The diagnosis of puerperal hematoma is primarily clinical. As in the literature [11], the symptomatology in our patient was marked by pain and the appearance, on inspection, of a vulvar swelling of the straight (large and small) lips. These symptoms are, most often, accompanied by signs of internal bleeding that can lead to the appearance of a state of hypovolemic shock, even if it is rarely inaugural. Sometimes fever, ileus, or painful white edema of the leg may be associated secondarily in low-noise forms. Although the diagnosis is, rarely, misleading in the vulvovaginal forms, case of our observation, other etiologies can be mentioned as differential diagnoses. It may be a vulvar or vaginal cyst, a bartholinitis, a uterine inversion, herniary tumors or complicated vulvar varices during delivery [12]. This then requires the

completion of imaging tests. According to Yamashita et al, magnetic resonance imaging (MRI) is much more efficient than ultrasound or computed tomography (CT), to show the deep extension of the puerperal hematoma. And although imaging is not essential for the diagnosis of vulvovaginal hematoma, it allows for more precise measurement and optimal monitoring of the extension of the lesion, when surveillance is chosen as a therapeutic option.

Management of puerperal hematoma

The choice of the management of a puerperal hematoma is discussed on a case by case basis. Like any postpartum hemorrhage, it must be fast and adapted. It is therefore necessary to know the different management strategies available to us and to ask the right indications. The first step in this management is

the completion of a uterine revision associated with a review of the genital sector, so as not to ignore other complications. The first step in this management is the completion of a uterine revision associated with a review of the genital sector, so as not to ignore other complications. However, for our observation, this examination may be inconvenient or impossible in view of the extent of the hematoma. The basic treatment is based on hemostasis and the correction of hemodynamic disorders. This basic treatment goes through a medical component to correct hypovolemia and possible blood-clot disorders, to quantify blood loss in order to anticipate complications, but also by adjuvant measures using anti-prophylaxis and analgesic treatment [14]. This hemostasis can be done alone by compression of the lesion by the hematoma. Clinical, biological and sometimes radiological monitoring will be needed to detect complications and assess the extent of this hematoma. Some teams propose it for hematomas smaller than five (5) centimeters [15], up to eight centimeters according to Villella *et al.* [16]. Beyond ten centimeters, surgical management is necessary in our context, as we do not have an interventional radiology department. This surgery consists of an exploration of the site of the hematoma, as performed in our patient, by incision, evacuation, hemostasis by X points and vaginal tamponade by a wick on an indwelling urinary catheter, the greatest difficulty being the localization. Bleeding

vessel. The removal of the vaginal tampon is a delicate postoperative stage in that a recurrence of bleeding is to be feared. In the event of failure (immediate or in case of recurrence) of the classic treatment as described before, embolization can be considered before vascular ligation (uterine arteries or even hypogastric arteries) [6, 8, 11]. The management of puerperal hematomas therefore requires multidisciplinary collaboration. Also, the summary of the care, as proposed by Bienstman-Pailleux *et al.*, seems appropriate, even if it requires adaptations in view of our working conditions (Figure 5).

Treatment must be primarily preventive. This is based on the careful hemostasis of tears or episiotomy, but also on the rigorous monitoring of patients in the postpartum period.

Puerperal hematoma medical treatment

- Conditioning maternal monitoring, venous path, indwelling catheterization, quantification of blood loss ...).
- FNS; hemostasis assessment.
- Vascular filling, transfusion and correction of coagulopathy if necessary.
- Analgesia.
- Anti-prophylaxis (e.g. amoxicillin-clavulanic acid: 3g / day).

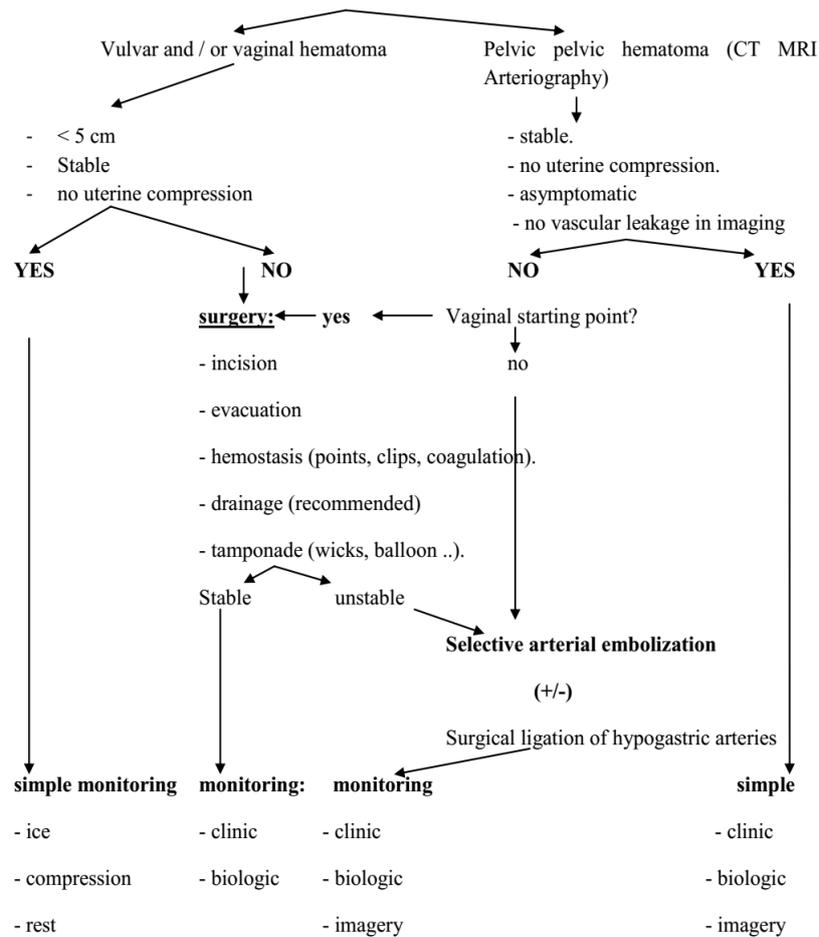


Fig-5: Management of puerperal hematomas according to Bienstman-Pailleux [6]

Prognosis

Although the management of postpartum hemorrhage has undergone many improvements over the years, the risk of maternal death remains. It's related to the phenomenon of disseminated intravascular coagulation that can be put in place. Apart from this serious evolution, the complications that can be encountered are anemia and asthenia due to blood loss, the recovery of bleeding may occur at a distance from the initial episode, especially during the removal of vaginal tamponade. Infectious complications can be found, in particular the abscess of the ischio-rectal fossae [17] but also deep vein thromboses. Recto-vesico or utero-vaginal fistulas can be found in the case of healing disorders, but also in the case of sequential dyspareunia associated with the formation of vaginal flanges, which may sometimes require secondary intervention [18].

CONCLUSION

Puerperal hematoma is a rare but not exceptional complication of childbirth that highlights the importance of immediate postpartum surveillance of the parturient at first, but also later. Its management can be simple when it is diagnosed early. His treatment is primarily preventive.

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