World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 6.129

POSTABORTAL ARTERIOVENOUS MALFORMATION APROPOS OF A CASE AND REVIEW OF THE LITERATURE

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Article Received on 07/02/2023 **Article Revised on 28/02/2023** **Article Accepted on 21/03/2023**

ABSTRACT

Uterine arteriovenous malformations are rare, and can be evoked in front of recurrent menometrorrhagia or cataclysmic genital hemorrhage, especially in the event of a history of miscarriages or trophoblastic diseases, they are often secondary to endo-uterine trauma, or less usually congenital. Their diagnosis is essential in order to avoid the realization of a hemostatic curettage which would be useless and especially deleterious, this diagnosis appeals in first intention to the ultrasound coupled to the color Doppler, but the pelvic MRI can also be necessary. Arteriography confirms the diagnosis and allows treatment by arterial embolization, which currently constitutes the treatment of choice, even if surgery retains a place in the event of failure or hemodynamic instability. We report in this article a case of arteriovenous malformation consulting in the emergency department of our maternity hospital for postabortive metrorrhagia.

KEYWORDS: Arteriovenous malformation, postabortal metrorrhagia; ultrasound and color doppler, embolization.

SUMMARY

Uterine arteriovenous malformations are rare, and can be evoked in front of recurrent menometrorrhagia or cataclysmic genital hemorrhage, especially in the event of a history of miscarriages or trophoblastic diseases, they are often secondary to endo-uterine trauma, or less usually congenital. Their diagnosis is essential in order to avoid the realization of a hemostatic curettage which would be useless and especially deleterious, this diagnosis appeals in first intention to the ultrasound coupled to the color Doppler, but the pelvic MRI can also be necessary. Arteriography confirms the diagnosis and allows treatment by arterial embolization, which currently constitutes the treatment of choice, even if surgery retains a place in the event of failure or hemodynamic instability. We report in this article a case of arteriovenous malformation consulting in the emergency department of our maternity hospital for postabortive metrorrhagia.

KEYWORDS: Arteriovenous malformation, postabortal metrorrhagia; ultrasound and color doppler, embolization.

INTRODUCTION

Uterine arteriovenous malformations are defined by the presence of arteriovenous fistulas in the uterus which can be responsible for serious bleeding that can be life-threatening. They are often found in women of childbearing age, but are also possible in postmenopausal women.[1] They are often secondary to intrauterine trauma such as curettage, uterine revision or caesarean sections[2], retention of trophoblastic following molar pregnancies.[3,4] More rarely, these UAVs are congenital due to a lack of vascular development during embryonic life.[5] However, these are most often asymptomatic.

It is always necessary to think about it in order to avoid the realization of a haemostatic curettage which would be useless or even dangerous for the patient.

OBSERVATION

This is a 35-year-old patient, with no particular history, G2P0, G1: curetted abortion at 06 weeks of amenorrhea, G2 spontaneous abortion. She presented to the emergency room for metrorrhagia after the spontaneous abortion that had occurred 20 days earlier.

The initial clinical examination showed TA: 10/06, afebrile, eupneic, conjunctiva are discolored With a gynecological examination which showed bleeding from the endouterine origin, a posterior closed cervix with a

normal sized uterus. The initial assessment showed an undetectable serum concentration of human chorionic gonadotropin beta and a hemoglobin level of 69 g/l.

Transvaginal ultrasound examination showed hematometry and endometrial thickness of 2.5 mm and no signs of retention of products of conception or intracavitary mass. However, Doppler examination revealed a densely vascularized structure in the posterior myometrium, which exhibited arterial and venous Doppler spectra (Figure 1).

The diagnosis of uterine arteriovenous malformation was suspected. Magnetic resonance angiography was requested which confirmed the presence of a 5.3 cm x 4.8 cm SAV and temporarily vascularized from the uterine and ovarian arteries.

In order to preserve her fertility, the MAVU was treated by bilateral embolization of the uterine arteries using resorbable gelatin.

The bleeding stopped and the patient recovered without complications.

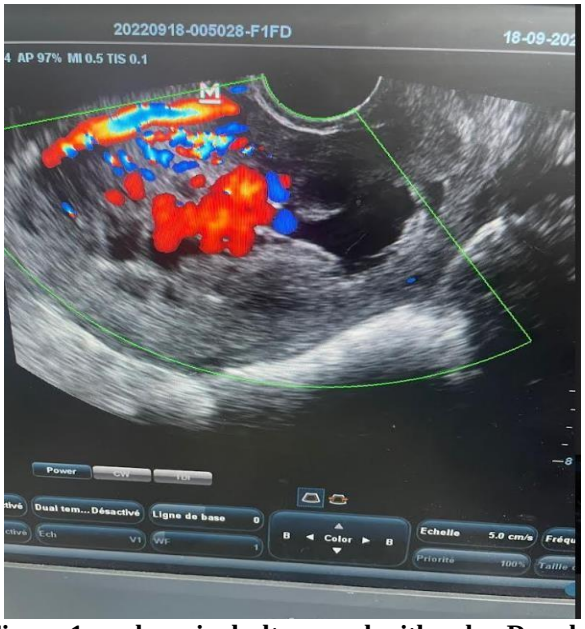

Figure 1: endovaginal ultrasound with color Doppler showing the arteriovenous malformation.

DISCUSSION

An arteriovenous malformation (AVM) corresponds to a direct abnormal communication between an arterial network and a venous network, without the intervention of a capillary network[6], they are rare and their frequency is not known because of the lack of case reported in the literature.[7]

They can be congenital or more frequently acquired, the congenital forms are related to a lack of vascular development during embryonic life[8], while the acquired forms are generally encountered after uterine trauma: curettage, uterine revision or caesarean section. In our case, the malformation occurs after 2 abortions with curettage in the first.

Symptoms are dominated by recurrent menometrorrhagia in young women, but sometimes AVMs can be revealed by pelvic pain, dyspareunia and/or anemia.[9] In the case of acquired UAV, menorrhagia most often neutralizes during the first menstruation following the traumatic gesture (curettage, uterine revisions, etc.).[10]

The paraclinical examinations that can confirm the diagnosis are pelvic ultrasound coupled with color Doppler, magnetic resonance imaging (with double interests; diagnosis and on the other hand, it allows to eliminate other diagnoses such as lesions inflammatory and uterine neoplastic diseases) and arteriography.[11] Doppler ultrasound shows anechoic, confluent, intra-myometrial, hypervascular islets, with very high systolic arterial velocities.

High.[12] In our case, ultrasound with color Doppler suspected the diagnosis, which was confirmed by angiography of the uterine arteries.

Hysteroscopy has little place in the diagnosis, it can highlight a pulsatile bumpy vascular structure on the surface of the uterine cavity.

In case of incidental discovery in an asymptomatic patient, there is no need for treatment. If the bleeding is massive and rapidly life-threatening, a haemostasis hysterectomy is indicated. When the condition is stable, the treatment methods will depend on the technical possibilities of the care center and the wishes of the patient.

Embolization is performed as first intention in most symptomatic patients. It has a high success rate with a low complication rate, as shown in the study by Ghai et al.[13] It is designated under local anesthesia, using a 4 or 5 French introducer placed at the level of the right or left femoral artery, then a flexible catheter of the same caliber which allows the selective embolization of the uterine arteries. In our case, embolization was the first-line therapeutic option without complications. In the literature, some complications have been described, most often minor, such as temporary pelvic pain and serious complications, although extremely rare, which are most often linked to embolization of the internal iliac artery creating cutaneous necrosis, deficits neurological and rectovesico-vaginal fistulas.

The prognosis of uterine arteriovenous malformations after treatment by embolization at the end of fertility and the prognosis of subsequent pregnancies seems generally good despite the small number of studies focusing on the prognosis of these AVMs. Indeed, Delotte et al., in a review of the literature listing 13 pregnant patients after embolization, found a time to conception of 6 weeks to 5

years.

Hysteroscopic resection can be a conservative alternative to hysterectomy in patients wishing to preserve their fertility.[14]

CONCLUSION

AVMs remain infrequent and poorly understood. They can lead to severe bleeding and life-threatening. Their early diagnosis is essential is initially done by ultrasound coupled with color Doppler which makes it possible to characterize the lesion, to guide the therapeutic choices.

Arteriography remains a reference examination in severe cases because it allows diagnosis and treatment at the same time by arterial embolization. Hysterectomy must remain, of our days, the rescue intervention of extreme cases involving the vital prognosis.

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