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Review Article **Pathology**

Thrombosis of the Right Ovarian Vein at Postpartum in a Case at the Suissi Maternity Unit in Rabat-Morocco

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Abstract

Ovarian vein thrombosis is a rare pathology, which can be encountered postpartum or postabortum. Its severity is linked to the risk of extension to the vena cava and therefore to the resulting risk of pulmonary embolism. Its diagnosis remains difficult due to the existence of misleading signs, but is currently facilitated by new imaging data: ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI). The treatment is mainly medical, combining heparin therapy and antibiotic therapy, surgery being reserved for complicated forms. We report a case of postpartum ovarian thrombosis at the Suissi maternity hospital in Rabat in a woman with a sparkling picture of appendicitis.

Keywords: Postpartum, thrombosis, right ovarian vein, fever and pelvic pain.

INTRODUCTION

Ovarian venous thrombosis is a rare pathology, usually occurring in the postpartum period. However, it can occur in other circumstances, such as inflammatory diseases of the pelvis, gynecological tumors, after pelvic surgery, during sepsis, during a state of hypercoagulability or even sometimes without an underlying cause. It is generally manifested by non-specific abdominal pain, accompanied or not by fever and must imperatively be recognized, because of its potential serious complications, even lethal (pulmonary embolism). Currently, the diagnosis is made earlier thanks to imaging techniques and the prognosis is much better.

COMMENT

This is a 38-year-old patient, with a history of hospitalization in the emergency room 5 days before her admission for a late abortion at 22 weeks of amenorrhea, it is a 4 -th gesture 4 -th part with 3 children by 3 caesareans.

The patient consulted on day 5 of her late abortion for pelvic pain localized to the right iliac fossa in a context of fever of 38.6°.

The admission examination finds a feverish woman, with BP: 10/06, HR: 100 beats / min

Abdominal-pelvic examination found slight tenderness in the right iliac fossa, and gynecological examination revealed an involuting uterus with minimal painless blackish lochia on mobilization, clinically eliminating the diagnosis of endometritis.

Faced with this symptomatology, appendicitis was evoked in first intention and therefore a biological assessment was requested, and an abdomino-pelvic ultrasound which was completed by an abdomino-pelvic CT scan (Figure 1).

The diagnosis of right ovarian vein thrombosis extended to the inferior vena cava was made while ruling out appendicitis.

Medical treatment with anticoagulants and antibiotics was started and the evolution was favorable 3 days later with the disappearance of pain and fever.

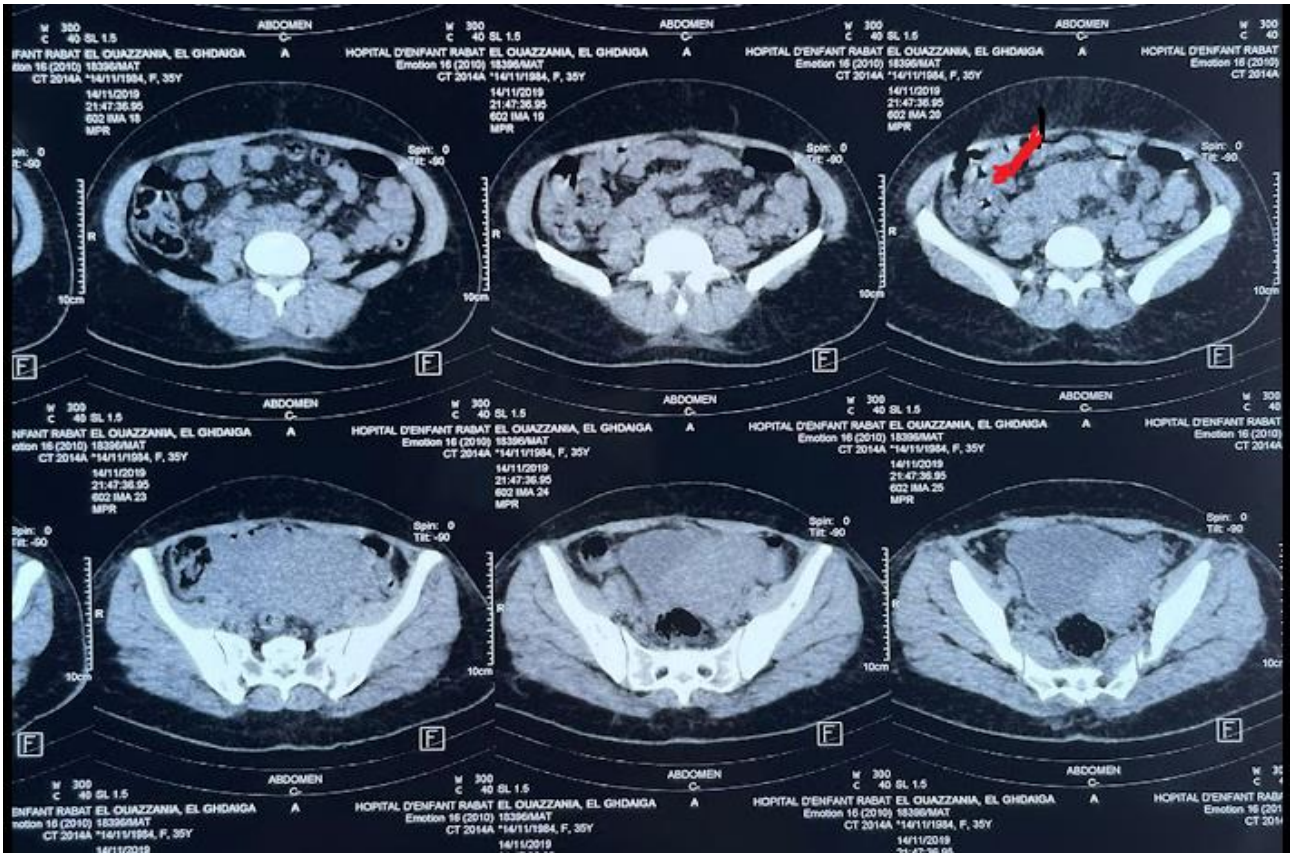

Figure 1: Pelvic CT after injection showing the thrombus in the right ovarian vein

DISCUSSION

Postpartum OVT complicates 0.05 to 0.18% of vaginal deliveries and 1 to 2% of caesarean sections. Delivery of twins by caesarean section induces the highest risk of developing OVT [1]. The appearance of a TVO is associated with the combined effects of the sudden drop in venous flow in the ovarian veins dilated by pregnancy, the state of hypercoagulability associated with pregnancy and the microlesions of the vascular endothelium caused by the 'childbirth. Postpartum OVT preferentially affects the right side, which is affected in 90% of cases. This clear lateralization would be due to a preponderant drainage of the gravid uterus by the right ovarian vein, whose caliber goes up to triple during pregnancy, to a marked stasis in this vein, caused by the position of the uterus and finally relatively incompetent valves on that side [2].

Symptoms most often begin the first week after delivery [6]. The clinical picture corresponds to a painful and febrile postpartum syndrome located in the iliac fossa or the right lumbar fossa [3, 4, 6]. Other more or less associated signs (nausea, vomiting, abdominal mass) can complete the clinical picture [4]. This symptomatology is non-specific and can be seen in other circumstances such as appendicitis, pyelonephritis, upper genital infection, cholecystitis or broad ligament hematoma [6, 5]. Appendicitis was the diagnosis strongly evoked in our patient. Most often, TVO is found during an imaging workup using ultrasound, CT or MRI [6]. The discovery can also be fortuitous, during a laparoscopy, performed for suspicion of appendicitis [7]. The study by Twickler *et al*., demonstrated that CT had better sensitivity (100%) compared to MRI (92%) and ultrasound (50%) [3]. But ultrasound remains a simpler, less costly and easier examination for monitoring venous repermeabilization [8] in our case, ultrasound was inconclusive and CT was used to establish the diagnosis.

Germ testing is important for targeting antibiotic therapy [5]. It is therefore necessary to carry out blood cultures, uro - cultures, vaginal samples and to culture the thrombus in the rare cases where thrombectomy has been performed. The bacterium in question, usually an anaerobic germ, is isolated in one out of five cases [6]. In our observation, no germ could be individualized. A thrombophilia assessment should be carried out afterwards, as it is abnormal in 50% of patients who have presented with OVT [6]. Pulmonary embolism, found in 13 to 33% of OVTs, is a serious complication involving the vital prognosis with death in 4 to 30% [6]. OVT should then be evoked in first intention and confirmed by imaging in the face of any painful and/or febrile postpartum syndrome, including an appendicular syndrome.

Sepsis and pulmonary embolism which is a serious complication involving the vital prognosis with death in 4 to 30% [6] and which must be evoked in first

intention and confirmed by imaging in the face of any painful syndrome and/or Postpartum fever, including appendicular syndrome, are the two major complications of OVT, with OVT occurring in 13–25% of postpartum OVT cases.

A treatment combining antibiotics and anticoagulants must therefore be quickly instituted. At first, the combination of a broad-spectrum antibiotic and heparin, both intravenously, was proposed. This treatment is generally maintained until the patient has remained afebrile for 24 to 48 hours in postpartum OVT. The exact duration of treatment remains controversial, especially in non-postpartum situations, because no randomized study has yet been conducted in these rare situations. Low molecular weight heparins have also been proposed, but there is no systematic study on this subject either. Oral anticoagulation is then continued for a period of six months. There is no recommendation for prophylactic anticoagulation in subsequent pregnancy after postpartum OVT. The recurrence seems exceptional. With a well conducted treatment, the mortality related to OVT is currently less than 5%, in relation to episodes of pulmonary embolism or severe sepsis.

CONCLUSION

OVT is a rare pathology occurring mainly during the postpartum period. It is also during this period that we think of actively looking for it when abdominal pain appears accompanied by a feverish state. Outside the postpartum period, OVT should be part of the differential diagnosis of abdominal pain syndrome in women. When performing imaging examinations in these situations, care should always be taken to study the route of the ovarian veins carefully, since an unidentified OVT can be complicated by sepsis or a pulmonary embolism, which are potentially lethal.

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