

Retroperitoneal endometriosis in postmenopausal woman causing deep vein thrombosis: case report and review of the literature

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Summary

Endometriosis is an uncommon disease in postmenopausal women (PMW), ranging from 2% to 5% of cases, and it is very important to exclude neoplastic transformation of the endometrium. The authors would like to introduce the case of a 63-year-old overweight patient with abdominal pain associated to pain and swelling of the left inferior limb occurring for approximately six weeks. The CT X-ray of the abdomen revealed the presence of a retroperitoneal mass causing deep vein thrombosis because of extrinsic compression of the left iliac vein. Following removal of the pelvic masses with laparotomy, the histological exam revealed an endometriosis. The CT X-ray carried out after a month postoperatively revealed the root canal treatment of the left femoral vein with a considerable decrease of the thrombosis of homolateral external iliac veins. Despite the endometriosis, it is uncommon in women who have reached menopause and must be considered in the differential diagnosis of pelvic masses.

Key words: Deep vein thrombosis; Endometriosis; Menopause.

Introduction

Endometriosis is the presence of an endometrial tissue, not neoplastic, sensitive to hormonal change, in different areas from the uterus. During the reproductive stage, endometriosis has an impact in women in up to 10% [1] and could be the cause of sterility and permanent pelvic pain. Its occurrence decreases during menopause [2]; however, there is nonetheless an incidence that ranges from 2% to 5% [3]. In the present case, the differential diagnosis was very important to exclude the presence of ovarian cancer.

The authors present an extremely rare case of retroperitoneal endometriosis in a postmenopausal woman with no previous history of hormonal replacement therapy (HRT), endometriosis or infertility, and that caused deep vein thrombosis from extrinsic compression of the left iliac vein.

Case Report

The present authors introduce the case of a 63-years-old Caucasian patient, who arrived at the emergency department with a pain in the left iliac fossa associate to pain and swelling of the inferior homolateral limb, occurring for approximately six weeks. The patient's medical record included tobacco dependence, hypercholesterolemia, obesity (BMI 36 kg/m²), two cesarean sections, and menopause at the age of 50. The patient denied any previous gynaecological pathology or ingestion of HRT. The left inferior limb had increased in volume with respect to the other side with a non-traceable edema, sign of Homans and Bauer pos-

itive, resembling a profound venous thrombosis, later confirmed by Doppler sonography. Hematological tests included D-Dimer equal to 1,040 ng/nl, P.T.79%, A.P.T.T. of 38.8 seconds, and fibrinogen 524 mg/dl. There were no hereditary factors of thrombophilia (factor II, V, VII, protein C and S, AT III negative). ECG was normal. A chest X-ray and X-ray angiography of the pulmonary artery did not reveal any signs of pulmonary embolism. Abdominal and pelvic X-ray CT revealed an extended thrombosis of the left femoral vein, external iliac vein, internal iliac vein, and left common iliac vein. The retroperitoneal uterus space and the homolateral paravascular fossa revealed an oval mass, of 6×8×8 cm (Figures 1-2). Gynecologic pelvic ultrasonography revealed that the uterus was normal and the ovary was in menopausal regression with an absence of pouring into the Douglas. While ultrasonography confirmed the presence of multilocular formation in the obturator foramen, hypoechoic with hemorrhagic contents with irregular external sides, without vascularization, fixed in the others zones, and not painful to pressure with the probe (Figure 3). Tumor markers were normal (CEA 1.7 ng/ml, CA – 125 24.2 U/ml, CA 15-3 16.6 U/ml). The treatment used for the patient was heparin with low molecular weight (enoxaparin sodium 0.6 U bid) and she was subjected to bilateral annessiectomy and laparotomy mass removal which contained red-brownish gelatinous material. The postoperative course was normal with discharge on the 7th day. The last histological exam revealed the presence of fibroadipose tissue bounding a cystic area with hemorrhagic contents with immunohistochemistry positive to CD 10, hence presuming diagnosis of endometriosis. Abdominal CT with intravenous contrast was performed in following 30 days from discharge and showed recanalization of the left common femoral vein thrombosis and a

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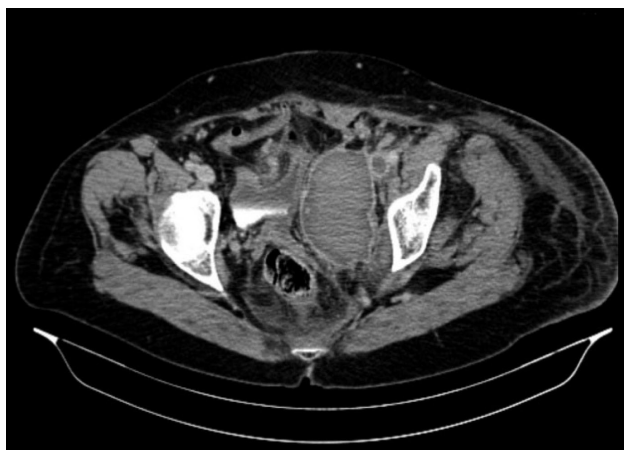


Figure 1. — Preoperative CT scan: paravascular mass of 6×8×8 cm.



Figure 3. — Multilocular formation, hypoechoic with hemorrhagic contents with irregular external sides, without vascularization.

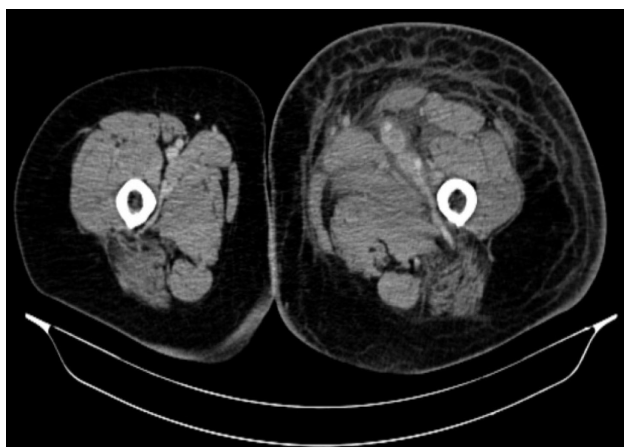


Figure 2. — Preoperative CT scan: extended thrombosis of the left femoral vein, external iliac vein, internal iliac vein, and left common iliac vein.

reduction of the external ipsilateral iliac vein with almost complete resolution of edema of the limb (Figure 4). The patient, at the moment, is on anticoagulant therapy with Warfarin and has no signs of symptoms.

Discussion

Endometriosis in menopause is an uncommon disease, situated especially in the ovaries, even if, some different case reports and case series describe the location in pelvic and extrapelvic (gastrointestinal, urine, retroperineal) areas [4-6]. Various pathogenesis mechanisms explain the presence of endometriosis in women that have reached menopause. The adipose tissue and skin are the most important sources of biosynthesis of estrogens during menopause. Velasco *et al.* demonstrated the expression of aromatase P450 in ectopic and eutopic endometrial of patients during menopause transition with endometriosis [7]. Other studies affirm that the production of estradiol en-

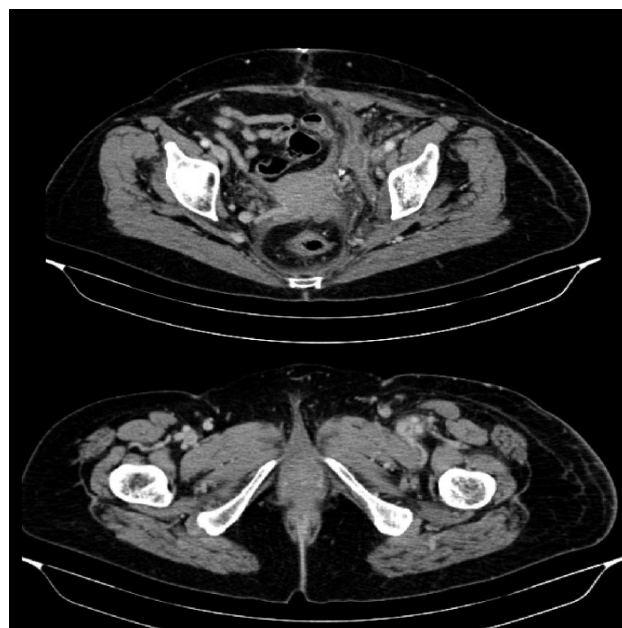


Figure 4. — CT scan 30 days from discharge: recanalization of the left common femoral vein thrombosis and a reduction of the external iliac vein ipsilateral with almost complete resolution of edema of the limb.

dogenous can contribute to the development of endometriosis during menopause. Zanetta *et al.* [8] sustain that extra estrogens, both endogenous (for example obesity) and exogenous, are a factor of risk for the development and the conservation of endometriosis during menopause and also for the onset of cancer from the endometriosis lesions. The role of extra estrogens is confirmed by the presence of receptors for estrogens and progesterone, and also for the presence of CD 10 in the endometriosis lesions [9]. In women that have reached menopause, Manero *et al.* underline the importance of a

immunosuppression state as a condition predisposing the development of endometriosis lesions [10]. These lesions, as documented by Morotti *et al.* [11], have low activity at histology, resulting from the attenuation of previous lesions. In literature there are many different case reports of extrapelvic retroperitoneal endometrioma, but only four cases of endometriosis are reported, occurring around large veins [12-15]. In one case there is a description of an endometriosis causing deep vein thrombosis, with surgical treatment on a woman that had reached menopause [14]. Endometriosis in women that have reached menopause often represents a completely accidental diagnosis. In this case the diagnostics by images and clinical symptomatology were not symptomatic of endometriosis and suggested a malignant pathology (like lymphoma). The patient was subjected to surgical treatment to solve vascular compression and rule out the suspicious of a malignant mass. In conclusion, therapeutic strategies of these masses have to be lead by clinical symptomatology, the age of patient and possible associated comorbidity. Endometriosis in women who have reached menopause, in particular the retroperitoneal form, represents an important diagnostic issue, and has to be considered in differential diagnosis of extensive pelvic masses.

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