Menorrhagia by uterine myoma concomitant to deep venous thrombosis: Treatment by uterine embolization and anticoagulation

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Introduction
Deep venous thrombosis (DVT) is a possible, nevertheless relatively uncommon complication among patients with Uterine Myomatosis. Indeed, the increase of uterine mass/volume associated with hormone therapy poses this cohort of patients at a higher risk for DVT. Moreover, patients with hypermenorrhea due to uterine myomatosis presenting with acute DVT face important limitations regarding its pharmaceutical treatment, what frequently leads to IVC ( Inferior Vena Cava) filter implant. This procedure, regardless of its morbidity, does not preclude post-thrombotic syndrome complications. Hysterectomy is a mutilating surgery, with important ethical limitations and often unacceptable to patients without defined offspring. A possible therapeutic strategy for these cases could be uterine embolisation, allowing posterior formal regular anticoagulation. We report the treatment of a patient with hypermenorrhea associated with uterine myomatosis and diagnosis of acute ilio-femoral DVT, successfully treated with uterine embolization and full anticoagulation.

Case Report: E.P.S, 32 y/o, nulliparous, was admitted to the infirmary due to prominent vaginal bleeding secondary to voluminous uterine submucous myoma, discovered six months before hospital admission, and treated since then with estrogens. Concomitantly with the bleeding symptoms, the patient complained of painful progressive edema on the left calf for 10 days, reaching the thigh three days afterwards. The patient presented with mucosal pallor, important edema in the lower limb, active vaginal bleeding and with an abdominal mass occupying all the hypogastrium ans mesogastrium. (figures 1 and 2)

Endovaginal ultrasound evidenced a 1,185 cm³ volume Uterus, heterogeneous, measuring 11.1x9.4cm. Lower limb color Doppler revealed massive DVT affecting external iliac, common and superficial femoral, popliteal, posterior tibial and peroneal veins.

Due to important anaemia, patient was transfused, and anticoagulation was not initiated before vascular surgery evaluation. Contrast magnetic reonance imaging revealed a voluminous submucous and intramural myoma.

Our option was to perform a pelvic angiography (figures 3 and 4), followed by uterin embolization through selective microcatheterization with 500 μm PVA particles, which lead to important perfusion of the myometrium. (figures 5 and 6)

Uterine embolization was performed under local anesthesia, what lead to complete remission of vaginal bleeding on the 2nd post-operative day, allowing anticoagulation with low molecular weight heparin and Coumadin to be administered. Discharge was possible on Day-6 with 5mg warfarin/day, with no signs of vaginal bleeding and significant improvement of the left lower limb edema. (figure 7)

Conclusion
Uterine embolization shortly before formal total anticoagulation could be a promising therapeutic alternative in conflicting situations involving life-threatening bleeding due to miomatosis and concomitant massive deep venous thrombosis. Potential advantages could encompass fast resolution with preserved integrity and quality of life for the patients. Further studies on this subject are recommended.

References