

Uterine arteriovenous malformation complicated by a scar ectopic pregnancy

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Background. Fertility preservation in patients with a CSP combined with an AVM is challenging. A co-existing CSP and AVM is a rare and potentially life-threatening combination that may be associated with uncontrolled haemorrhage, leading to hysterectomy. Initial diagnosis that could be made with transvaginal ultrasound using colour Doppler examination, and a rapid and appropriate management are necessary to prevent many tragic complications.

Case presentation. A 40-year-old woman with two previous lower segment caesarean deliveries. Patient underwent a D&C for internal abortion in July 2023. Significant uterine bleeding was observed during the procedure that was threatened and resolved with tranexamic acid. At histology: "gravidic endometrium; decidua in regression with severe myointimal hyperplasia occluding arterioles, necrotic-inflammatory foci and diffuse fibrin deposits. Dilated and edematous chorionic villi".

After this event, we detected β -human chorionic gonadotropin (β -hCG) serum levels (94 IU/L) and performed a

transvaginal scan, which showed a gestational sac located at the cervico-isthmic region, and a heterogeneous haematic mass with a maximum diameter of 43 × 38 mm, with mixed echogenicity, Colour-Score 2, to refer to a RPOC after D&C. During the following weeks, serum β -hCG levels gradually decreased (68 IU/L) despite the evidence of a vascularized intrauterine mass diameter; furthermore, Power Doppler US showed turbulent and heavy blood. The patient was readmitted to our hospital for vaginal bleeding. So, considering the high risk of sudden haemorrhage and the patient's request to preserve fertility, we decided to perform a selective embolization of blood vessels supplying the mass.

The efficacy of this procedure was confirmed by TV-US, showing deeply decreased vascularization of the intrauterine mass, the serum β -hCG level decreased and the patient was discharged in a stable condition.

Conclusions. Uterine artery embolization is an effective mode of treatment of AVM complicating CSP in women with desire of fertility preservation.