



Management of complicated arteriovenous malformation in the scar after the cesarean section

Maderka M, Pilka R, Marek R, Köcher M, Kratochvilova T, Hambalek J

Department of Obstetrics and Gynecology, University Hospital in Olomouc, Czech Republic, Olomouc, Czechia

Objective

Arteriovenous malformation of the uterus (AVM) is a rare vascular disease occurring during the reproductive period. Patients mostly suffer from repeated abortions and menorrhagia. Diagnosis is based mostly on imaging methods (ultrasound and magnetic resonance imaging).

Methods

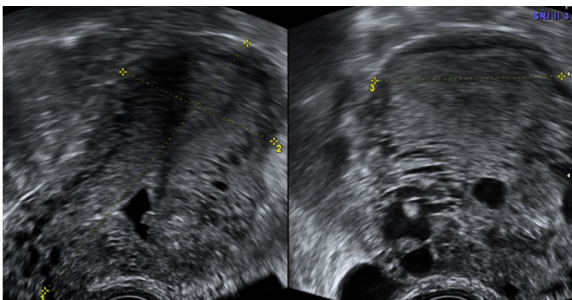
This is a case report.

Results

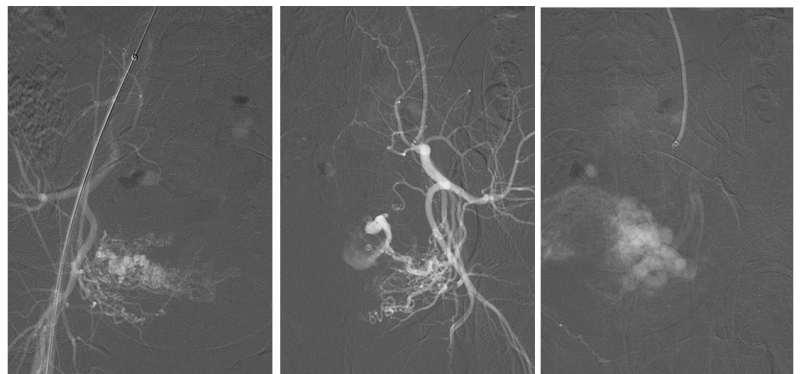
We present an experience with the management of AVM in the scar after the cesarean section. The patient was referred to our department for abdominal pain and spotting after a uterine cavity revision for abortion with a hCG of 60 IU/l. A suspicion of a persistent trophoblastic invasion in the scar after the cesarean section was based on ultrasound and computed tomography. The patient was referred to the Center for Trophoblastic Disease in Prague where the AVM was diagnosed and embolization of uterine arteries was recommended. Despite the repeated embolization of AVM at our hospital, the patient came back with pain in the lower abdomen, spotting and new onset of subpyrexia. The patient was considering hysterectomy even though she still wishes another pregnancy. After counselling a laparoscopy was performed. Laparoscopic removal of AVM, embolization spirals and resuture of uterotomy in two layers was performed. The postoperative checkup was with no complications and the ultrasound examination did not show the presence of AVM.

Conclusion

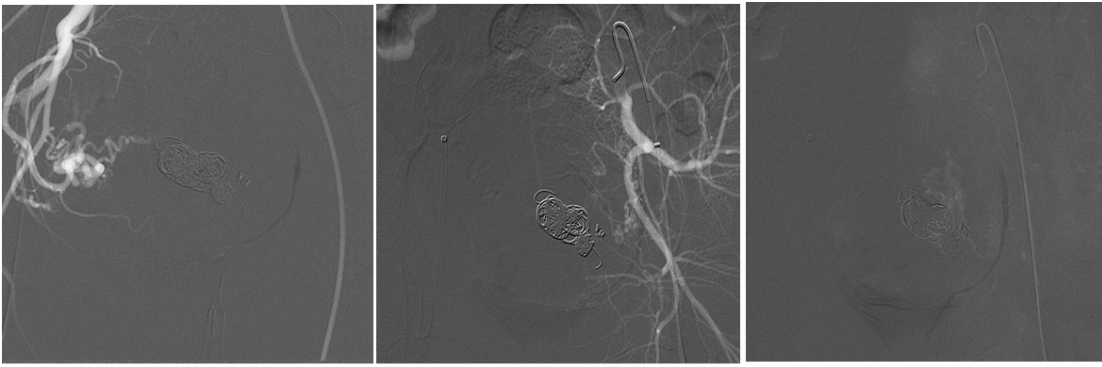
Treatment of AVM is mostly surgical (hysterectomy or removal of AVM) and/or selective arterial embolization. We present our experience with a minimally invasive approach in a patient with AVM.



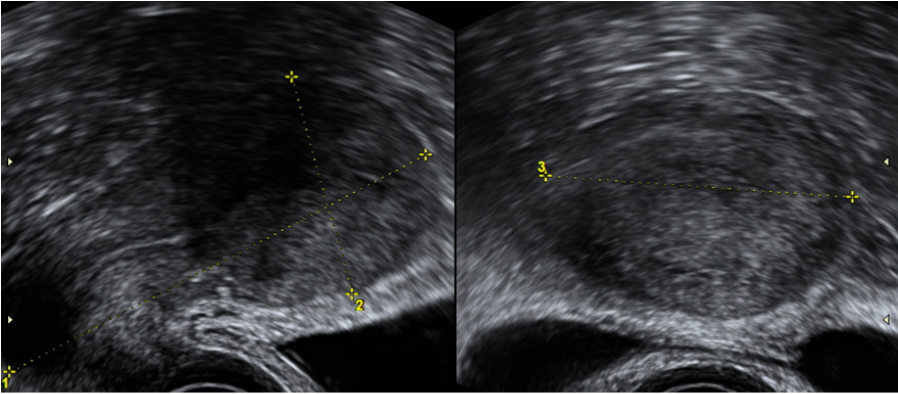
Transvaginal ultrasound before treatment. In the figure on the left, the uterus in the sagittal section, in the figure on the right, the uterus in the transversal section, the arteriovenous malformation is located in the area of the anterior uterine wall - inhomogeneous, multilocular solid formation, located intramurally and transmurally.



Digital subtraction angiography before treatment



Digital subtraction angiography after four sessions of embolization and sclerotization. Embolization spirals are marked by the blue arrow



Transvaginal ultrasound after the treatment. In the figure on the left, the uterus in the sagittal section, in the figure on the right, the uterus in the transversal section, without the presence of the arteriovenous malformation.