**Objective:** To report conservative management of post-miscarriage uterine Arteriovenous Malformations (AVM) diagnosed by 2- and 3-dimensional transvaginal sonography with color or power Doppler assessment (2D-3D-TVS) and conservatively managed by gonadotropin-releasing hormone agonist (GnRHa) administration.

**Methods:** Consecutive fertile patients with a recent history of first trimester miscarriage or abortion were considered. 2D-3D-TVS was performed by the GE Voluson E8 unit, using a wide-band 3-9 MHz transducer. Criteria for the sonographic diagnosis were presence of an irregular lobulated myometrial lesion with mixed echogenicity by 2-D TVS imaging, on sagittal and/or transverse section of the uterus, adjacent to the uterine cavity with or without clearly visible products of conception, with abundant intrallesional vascularization (color score 4), and high velocity blood flow within the vascular “web” with a peak systolic velocity (PSV) of >20 cm/sec by color or power Doppler imaging. In the absence of significant bleeding, a proper counseling and informed consent, a 3.75mg GnRH agonist was selectively administered. A sonographic follow-up was given within two months.

**Results:** Eight patients were enrolled. Median age was 33 years (IR 29-35). Median lesion diameter and volume were 25mm (IR 23-31) and 8cm3 (IR 6-14). Median PSV was 32 cm/sec (IR 29-38). In all patients the myometrial lesion spontaneously and uneventfully disappeared within the two months follow-up period.

**Conclusions:** Ultrasound based triage by 2D-3D-TVS with color or power Doppler assessment should be considered the gold standard for diagnosis of AVM, being the simplest and most cost-effective diagnostic imaging modality. Conservative management of uncomplicated patients should be based on GnRHa and sonographic follow-up.