Intervillous Blood Flow in Patients with Missed Abortion

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Aim: Analysis of the color Doppler features of intervillous flow in cases of missed abortion, and their comparison with the findings in normal pregnancy.

Methods: Transvaginal color and pulsed Doppler was used in the analysis of 38 patients with missed abortion and 40 patients with normal pregnancy. The gestational age ranged from 6 to 11 weeks. Repeated analysis of variance was used to compare the groups.

Results: Two types of Doppler signals were detected in the intervillous space: pulsatile and continuous. Impedance in the intervillous space of both groups did not change significantly with the gestational age. For the group with missed abortion, the mean resistance index (RI) was 0.37±0.03 and pulsatility index (PI) 0.75±0.07. For the control group, the mean RI was 0.36±0.02 and PI 0.72±0.04. The differences in RI and PI for all gestational age groups and between the two patient groups were not statistically significant. With advancing gestation, continuous, venous-like signal became stronger and randomly dispersed throughout the placenta. Peak flow velocity values obtained from both groups did not change significantly with gestational age, nor between the two groups.

Conclusion: The new generation of sensitive Doppler units can detect the intervillous flow as a continuous progressive process at 6-11 weeks of gestation. The vascular resistance in the intervillous space does not change in cases of missed abortion.

Key words: abortion, missed; blood flow velocity; Doppler ultrasound; pregnancy trimester, first

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