

Uterine artery Doppler for subchorionic hematoma and the chorion regression syndrome / impaired placentation continuum

Subchorionic hematomas are manifestations of the chorion regression syndrome resulting from impaired placentation and clinically silent marginal low-pressure venous abruptions necessitating uterine artery Doppler to complete and optimize risk assessment for placenta-related adverse obstetrical outcomes.

Uterine artery Doppler is a validated non-invasive proxy for placenta ischemia due to impaired placentation and defective trophoblastic invasion. Uterine artery Doppler is a marker for defective remodeling of spiral arteries with consequent placental malperfusion and associated impaired fetal growth.

*Scazzocchio. Ultrasound Obstet Gynecol 2017; 49:435 - 441.

*Mifsud. Placental pathology in early onset and late onset fetal growth restriction. Fetal Diagn Ther 2014;36:117-128

Subchorionic complex fluid collections (subchorionic hematoma) located along placental edges and along the fetal preplacental surface occur as a consequence of impaired placentation O36.5130 resulting in clinically silent marginal low-pressure venous abruptions creating subchorionic hematomas.

Chorion regression syndrome / impaired placentation represents a maldevelopment of maternal vascular supply and loss of integrity resulting in superficial implantation and migration disorders.

Chorion regression syndrome / superficial implantation and migration disorders result in 1 or several of the following alterations in placental morphology - previa, succenturiate lobes, circumvallate placentation, marginal / velamentous cord insertion and / or clinically silent marginal low-pressure venous abruptions.

*Placental pathology: A systematic approach with clinical correlations. R. W. Redline. Placenta. 29, Supplemental A, Trophoblast Research, volume 22 (2008) S86 - S91.