Chorioangioma associated with preeclampsia

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Objective

Placental chorioangioma (CA) is the most common benign tumor of the placenta. The prevalence of large CA (≥5 cm) was estimated at 1/3500 to 1/16,000. Large CA or the presence of multiple masses have been associated with clinic manifestations including fetal growth restriction, nonimmune hydrops, polyhydramnios, feto-maternal hemorrhage, neonatal hypoalbuminemia and platelet sequestration.

Methods

This is a case report.

Results

A 26-year-old primigravid woman at the 28 weeks of gestation was referred to our hospital, because of hypertension, and finding of a placental tumor for further investigation and management. Ultrasound (US) examination revealed normal fetal growth for gestational age. The amniotic fluid index was 18 cm, with the deepest pool of 5 cm. Ultrasound middle cerebral artery peak systolic velocity (MCA-PSV) by color Doppler was 41 cm/s, which was 1.06 MoM. Waveform infetal ductus venosus flow assessment was normal. The placenta was located in posterior uterine wall with a vascularized tumor measuring 6.6 cm × 4.4 cm and an individualized, hypoechogenic lesion with no calcifications. On color Doppler imaging, a central feeding vessel which had a branching pattern with a pulsatile flow was seen. The blood pressure was 140/90 mmHg, urinalysis revealed proteinuria (+2) and a quantitative protein measurement of 1.9 g/24 hours was confirmed. Other laboratory tests were normal. Now, the patient is at 31th week of gestation, and her antenatal follow up is continuing.

Conclusion

Chorioangioma is the most common tumor of the placenta which is composed of capillaries, cellular stroma and trophoblast. In most cases, it occurs on the fetal side of the placenta, near cord insertion and protrudes into the amniotic cavity. On US examination, choriangioma is generally seen as well define, hyperechogenic rounded mass. It is usually solitary but can be multiple. Masses ≥5 cm are considered large and associated with adverse perinatal outcome. Chorioangiomatosis may present as multiple small masses or diffusely heterogeneous placenta. Chorioangiomas greater than 5cm or multiple smaller chorioangiomas are more likely to cause complications including rarely preeclampsia like in our case. Vascularity may be more significant than size for predicting outcome. Differential diagnosis of placental masses include placental hemorrhage, placental teratoma, degenerated myoma, placental metastases, triploidy. Color Doppler imaging can be helpful to rule out other diagnose and confirm vascular channels that are connected with fetal circulation. After diagnose US surveillance is recommended every 2 to 3 weeks, followed by weekly scans after 32 weeks’ gestation for size, vascularity and fetal assessment. It is also important to evaluate for other complications. Generally, no treatment is necessary. Steroids and early deliver, transfusion for anemia, and surgical interventions such as vessel ligation, laser coagulation, alcohol injection can be considered for treatment.