A Large Placental Chorioangioma with Good Perinatal Outcome

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Chorioangioma is one of the most frequent benign neoplastic diseases of the placenta. Large chorioangioma is a rare primary placental tumor and usually measures greater than 5 cm.

A twenty-six-year-old Filipina primigravida was seen at 29 weeks of gestation. At 37 weeks of gestation, she was noted to have a large 8×8 cm placental chorioangioma by ultrasound. She underwent elective cesarean section and delivered a live baby girl with good Apgar score. Histopathology of the placenta confirmed the diagnosis of 14×13×4 cm chorioangioma.

In this case, a large placental chorioangioma was found with good maternal and fetal outcome.

Placental tumors are classified into trophoblastic and non-trophoblastic tumors. Chorioangiomas are the most prevalent non-trophoblastic type of tumors. These tumors are a common primary benign group1,2. The incidence of chorioangiomas approximately ranges from 0.5% to 1% 1,2,3,4,5. Tumors that measure more than 5 cm are classified as large chorioangiomas. The occurrence varies in different studies between 1/2000-3500 births and 1/9000-50000 pregnancies3,5,6,7. However, large chorioangiomas are rare. Most studies found a higher prevalence in primigravida, female sex fetus, twin pregnancy, elderly maternal age and other maternal morbidities, such as diabetes and hypertension8.

The pathogenesis of this benign tumor is not well understood9. Hypoxia and genetics are factors cited in some studies9,10,11. Histologically, these tumors are classified into angiomatous, degenerative and cellular. Angiomas are the most common form. Malformation, abnormal vascularization, arteriovenous shunts, proliferation and perfusion of the vascular system of the placentae lead to the prenatal complications8. Small chorioangiomas are mostly undiagnosed unless routine histopathological examination of placentae is performed. Small chorioangiomas are symptomless and mostly do not cause any maternal and fetal adverse events. On the other hand, larger chorioangiomas are often diagnosed during a routine antenatal ultrasound scan, mostly seen as a hypoechoic mass which contains anechoic cystic spaces in-between. The diagnosis accuracy could be confirmed by MRI imaging. Differential diagnosis includes partial molar pregnancy, retropelatal hematoma, submucous fibroid, and placental teratoma1. Chorangiosis and chorangiomatosis are documented as a differential diagnoses because of their similar nature8.

These large tumors are prone to maternal complications and adverse fetal outcomes due to abnormal vascular shunts and vascular perfusions. Maternal complications include premature labor, polyhydramnios, abruptio placenta, preeclampsia, eclampsia and postpartum hemorrhage1,8,12. Fetal complications include preterm birth, intrauterine growth restriction, fetal congestive cardiac failure, fetal hydrops, fetal anemia, fetal thrombocytopenia and intrauterine fetal death1,8,12,13. These vascular placental tumors and their relationship with congenital malformations and chromosomal abnormalities were documented in few studies8,14,15. Perinatal death of 30-40% was documented3,12. Prognosis varies according to the size of the tumor, the degree of the vascular shunts and maternal and fetal complications8,13.

The small size and asymptomatic tumors are usually managed conservatively with regular monitoring by ultrasound and assessment. Meanwhile, large tumors need frequent ultrasounds, Doppler studies for the assessment of vascular shunts, vascularity of the tumors, and middle cerebral artery, fetal cordocentesis and fetal echocardiogram to assess the fetal complications1,4. Management could be amnio-reduction, intravascular transfusion, endoscopic laser coagulation, and embolization, interstitial laser therapy and injection of alcohol12. The high rate of perinatal mortality justified the intrauterine interventions16. Most studies confirmed the need for close observation16. Recurrence of chorioangiomas is not well recognized8,17.

The aim of this presentation is to report a case of large chorioangioma with its maternal and fetal outcome.

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