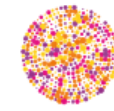


# CHORIOANGIOMA: A RARE PLACENTAL TUMOUR

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## INTRODUCTION

Chorioangioma is a non-trophoblastic vascular tumor of the placenta arising from chorionic tissue and occurs in 1% of all pregnancies.<sup>1</sup> They have a higher prevalence both in female infants and high altitude pregnancies.<sup>1</sup> These tumours are usually an incidental finding at a routine fetal scan or histopathologic examination of the placenta and are usually asymptomatic.<sup>1,2</sup> Clinically significant chorioangiomas are rare with a prevalence of 1 in 3500–9000 deliveries.<sup>1</sup>

Larger chorioangiomas<sup>1,2</sup>, presence of multiple chorioangiomas<sup>1</sup>, and chorioangiomas with increased vascularity correlates with increased maternal and fetal complications<sup>3</sup>. Complications include polyhydramnios, preterm labour, fetal anemia and fetal growth restriction.<sup>1-3</sup> The literature suggests that the occurrence of fetal hydrops is a strong risk factor for adverse perinatal outcome.<sup>2</sup>

Treatment in the prenatal period may be targeted to treat symptoms or alter the physiology.<sup>1</sup> Treatments targeting symptoms that may be considered include amniocentesis for polyhydramnios and intrauterine transfusion for fetal anemia.<sup>1</sup> Treatments altering physiology have been described, they include injecting alcohol into tumour veins to induce endothelial damage and intravascular coagulation, and laser therapy to coagulate superficial feeding vessels of the chorioangioma.<sup>1,2</sup> These treatment options have been considered in clinically significant tumours taking into account the gestational age of the fetus and potential risks of the procedure.

## CASE

A 30 year-old primigravida was suspected to have a placental chorioangioma at the mid-trimester morphology scan. The ultrasound reported a focal hypoechoic lesion measuring 37mm x 21mm x 43mm within the placenta, with minimal vascularity and not in close proximity to the umbilical cord.

The woman had regular antenatal care and serial ultrasounds which reported no significant increase in size or vascularity of the chorioangioma. Fetal growth restriction was diagnosed at 29 weeks gestation, where the estimated fetal weight and fetal abdominal circumference were less than the 5<sup>th</sup> centile.

Serial ultrasounds demonstrated adequate interval growth, normal liquor and fetal dopplers remained within normal limits. The chorioangioma did not increase in size during the pregnancy, there was minimal vascularity and no other chorioangiomas were identified.

Over the course of the pregnancy no other fetal or maternal complications were identified and our patient was managed expectantly. Induction of labour was performed at 39 weeks gestation in view of fetal growth restriction. She had a normal vaginal delivery of a live baby girl, birth weight 2790 grams with an Apgar of 9 at 1 and 5 minutes. She was discharged following routine post-partum care, and mother and baby remained well.

Histopathology of the placenta revealed two chorioangiomas with focal areas of infarction. The overall weight of the placenta was at the 75<sup>th</sup> percentile for gestational age at 39 weeks.



Figure 1: Sagittal, colour Doppler ultrasound of the uterus demonstrating an avascular chorioangioma in the placenta



Figure 2: Placenta with chorioangioma in situ



Figure 3: Macroscopic cross section of chorioangioma

## IMAGES

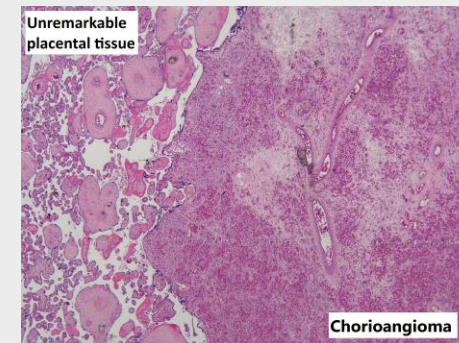


Figure 4: Histopathology of a fairly well circumscribed nodule (chorioangioma) surrounded by unremarkable placental tissue

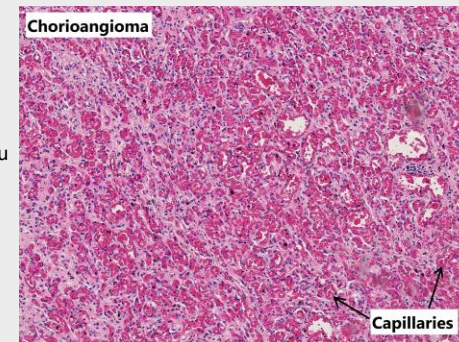


Figure 5: Magnified histopathology demonstrated proliferation of capillary sized blood vessels consistent with chorioangioma

## DISCUSSION

Chorioangioma is a benign vascular malformation that can be associated with adverse outcomes. Our case demonstrates a favourable maternal and newborn outcome in a pregnancy associated with a chorioangioma.

Antenatal surveillance is recommended in a pregnancy where a chorioangioma has been diagnosed. Surveillance is beneficial as it provides an opportunity to reassure the mother, provide a view on prognosis, and in rare cases allow for intervention if required.

### References

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