# Chorioangioma: A case series of polarised obstetric outcomes

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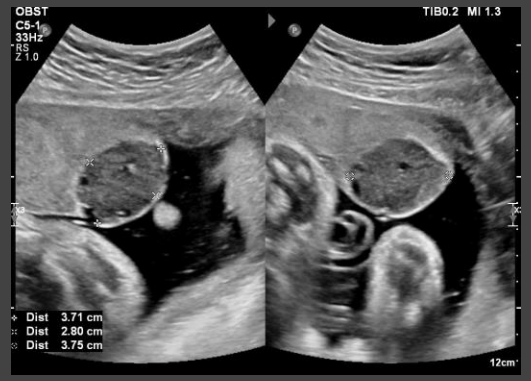
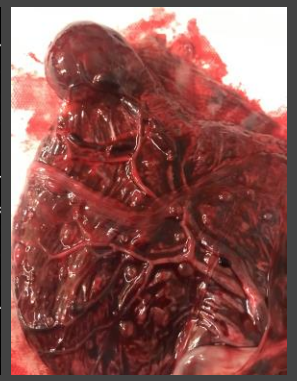
## Background:

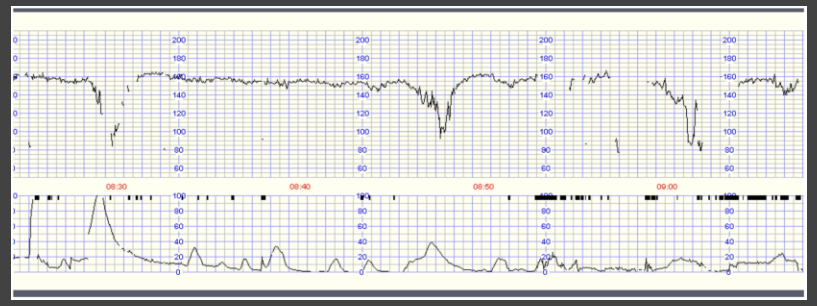
- Chorioangioma is an uncommon finding on obstetric ultrasound but has ramifications with ongoing monitoring and sequelae for the foetus. (1-3)
- Chorioangiomas are a benign, non-trophoblastic neoplasm of the placenta and complicate less than 1% of all pregnancies. (1,4)
- Most chorioangiomas are small and asymptomatic; however giant lesions (>4-5cm) can cause rare and sometimes severe obstetric complications. (1, 4)
- Complications of pregnancy include polyhydramnios, fetal growth restriction (FGR), fetal distress, pre-eclampsia, fetal anaemia-thrombocytopaenia, congestive heart failure, prematurity and other fetal anomalies. (1-5)

## Case One:

- 34yo G3P2. Two previous term vaginal deliveries.
- Diagnosed with a chorioangioma at 36+3 weeks gestation on ultrasound (USS).
- Indication for the USS: gestational hypertension, not requiring medication, and a decreased fundal height for gestational age.
- The USS findings: Normal fetal growth, dopplers and liquor. 37x28x38mm placental mass, suggestive of a chorioangioma. (See images)
- This patient went on to have a normal vaginal delivery with no fetal sequelae of obstetric complications.
- Placental histopathology demonstrated a 4.5cm chorioangioma accounting for 5% of the placental volume.
- Baby and mother were well.





Top Left: Case One USS of the chorioangioma, with a well-circumscribed hypoechoic heterogenous mass. Top Right: Placenta from Case One with a macroscopically visible chorioangioma. Bottom: Abnormal CTG from Case Two prior to the EmCS.

References:

1. Zaigui W, et. al.. Clinical analysis of 26 patients with histopathologically proven placental chorioangiomas. European Journal of Obstetrics, Gynecology and Reproductive Biology. 2016 April; 199: 156-163.
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3. Guschmann W, et. al. Chorioangioma - new insights into a well-known problem I. Results of a clinical and morphological study of 136 cases. Journal of Perinatal Medicine. 2005 June; 31(2).
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5. Miaoying F, Skupski DW. Placental chorioangioma: literature review. Journal of Perinatal Medicine. 2013 December; 42(3): 273-279
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## Case Two:

- 25yo G1P0 presented to the birth suite at term following prelabour rupture of membranes.
- Antenatally, she had a BMI of 36 and pregnancy induced hypertension, not requiring medication.
- On routine admissions reviews she had an abnormal CTG. (See images)
- A category one emergency caesarean section (EmCS) was performed for suspected fetal distress and a 2640g female infant was delivered.
- Subsequent histopathology of the 402g placenta diagnosed a large 5cm chorioangioma and multiple smaller chorioangiomas affecting at least 35% of the placenta.
- Both mother and baby recovered well.

## Discussion:

- These cases demonstrate two varying outcomes associated with giant placental chorioangiomas.
- Case Two's high BMI and posterior placenta resulted in technically difficult scans, assessed as contributing to the chorioangiomas being unobserved on USS, including retrospective reviews. (6)
- This is in contrasted to Case One with a lower BMI and anterior placenta.
- Both cases developed the known complication of gestational hypertension. (2)
- Case Two emphasises the association of large chorioangiomas with poor fetal and maternal outcomes, in particular fetal distress and FGR. (1,2)
- The series highlights the potential obstetric complications and diagnostic complexities associated with an increased maternal BMI, specifically regarding ultrasound. (6)
- The series also presents a pathologically abnormal CTG with a rare cause, only able to be diagnosed following delivery. (2)

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