Positive outcome in large 11cm placental chorioangioma

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Background

- Placental chorioangioma is a benign neoplasm most commonly composed of an abnormal proliferation of vessels arising from chorionic tissue[1].
- When examined microscopically its incidence is as high as 1%, however the incidence of those that are clinically evident is 1:3500-1:9000 births[2].
- Most associated risks increase with increasing size of the neoplasm.

Aims

- To raise awareness of chorioangioma and the possible associated clinical implications.

Case

- A 32yo nulliparous woman undertaking a 32 week growth scan for gestational diabetes was found to have a complex region in the placenta measuring 9x4cm.
- The differential diagnosis was thought to be chorioangioma vs complex/thrombosed placental venous lake.
- On review of 28 week ultrasound this could also be appreciated on sonographic images, but not so on stored images from 20 week morphology ultrasound scan.
- A tertiary ultrasound was performed at 34 weeks gestation showing nil features of hyperdynamic circulation nor hydrops. A plan for fortnightly ultrasound scans was arranged and delivery at a tertiary hospital if sonographic signs of fetal compromise revealed.
- 37 week tertiary ultrasound revealed EFW 80%, AC 97%, MCA PSV 1.04MoM, normal AFI & dopplers and a heterogenous area within the placenta measuring 9x7cm.

Results

- Induction of labour was arranged at 39 weeks and the woman progressed to a normal vaginal delivery. Baby was born with APGARS 9 & 9. Placental histopathology confirmed a 11x9x5cm chorioangioma. Areas of infarction with fibrosis, hyalinization and calcification, as well as background myxoid degeneration were also noted.

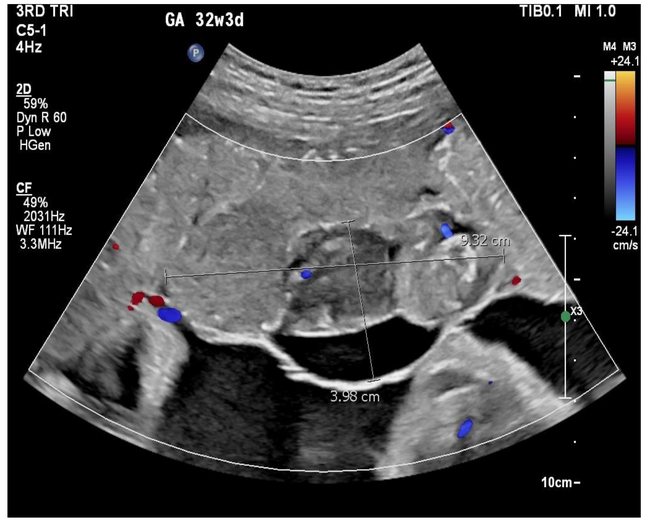

Figure 1. Obstetric ultrasound of patient. Note complex region of placenta comprised of two ovoid hypoechoic components, plus a fluid component containing a region of avascular internal echoes

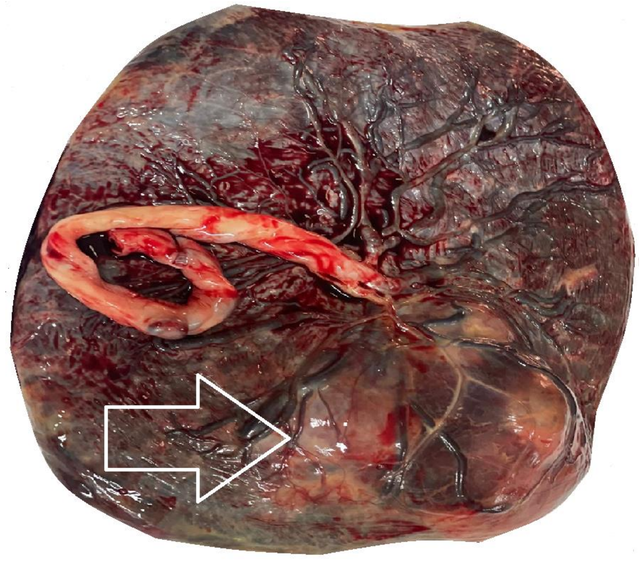

Figure 2. Image of placenta. Note arrow depicting large chorioangioma.

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Discussion

- Chorioangioma is associated with a number of pregnancy-associated risks, including fetal thrombocytopenia secondary to consumptive coagulopathy, fetal anaemia, fetal or neonatal death, small for gestational age, and iatrogenic preterm birth[1]. Arteriovenous shunting can lead to high output heart failure resulting in cardiomegaly, polyhydramnios, increased velocity in the middle cerebral artery, and fetal hydrops.
- It is essential that pregnancies with suspected chorioangioma be monitored with regular ultrasound assessment to exclude the above complications.
- Most risks increase with the size of the chorioangioma. Data from a recent systematic review of perinatal outcome of pregnancies complicated by placental chorioangioma showed for chorioangiomas ≥2, ≥4, ≥6, ≥8, and ≥10 cm, the frequency of fetal hydrops was approximately 15, 16, 20, 28, and 52 percent, and frequency of perinatal death 10, 11, 14, 20, & 28% respectively[3]. Such data highlights the importance of surveillance in this particular case.
- Treatment depends on the complication, and several previously used modalities have been described with the main goal of achieving cessation of blood flow to the tumour. These include intratumoral alcohol injection, endoscopic surgical devascularisation, radiofrequency ablation, interstitial laser ablation or photocoagulation, embolisation of feeding vessels and intrauterine transfusion[4,5,6].
- Postpartum the placenta should be sent for histopathology to exclude malignant neoplasm.

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