

Students' Corner

Case Report

A large chorioangioma causing intrauterine foetal demise

Aamer Imdad,¹ Lumaan Sheikh,² Ayesha Malik³

Final Year Medical Student,¹ Department of Obstetrics/Gynaecology,^{2,3} The Aga Khan University, Karachi, Pakistan.

Abstract

Chorioangioma is a benign tumour of the placenta consisting of blood vessels and stroma that proliferates beyond normally developing chorionic villi. Most of the small tumours are asymptomatic but large placental tumours are associated with unfavourable outcomes for foetus and mother. We present a case of a 23 year old primigravida who had a large chorioangioma that lead to intrauterine foetal demise. Major complications and diagnostic tools for chorioangioma have been discussed.

Introduction

Chorioangioma is a benign tumour of the placenta consisting of blood vessels and stroma that proliferate beyond normally developing chorionic villi.¹ Its incidence has been reported as 0.61%. Most of the small tumours are asymptomatic but large placental tumours are associated with unfavourable outcomes for foetus and mother.² We present a case of a 23 year old primigravida with a large Chorioangioma leading to intrauterine foetal demise.

Case Report

A 23 year old primigravida was referred to our antenatal clinic from a rural area at 36 weeks of pregnancy, for evaluation of a placental mass seen on routine obstetric ultrasound. The mass was initially noted on foetal anomaly scan at 20 weeks of gestation but was not followed up. According to patient her antenatal period was unremarkable except that she was feeling decreased foetal movements for the last one week. On examination, she was pale and oedematous. Her vitals were: Blood Pressure 110/90 mmHg, pulse 110 beats/min, Respiratory rate 22 breaths/minute and Temperature 37°C. On obstetric examination, symphysiofundal height was 40 cm, a cephalic presentation and foetal head was three fifth palpable. Foetal heart sounds were not audible. On admission, her lab investigation showed haemoglobin of 9 g/dl, platelets 150×10⁹/hpf, Beta HCG 12853 mg/dl, random blood sugar 86 mg/dl. Coagulation profile and renal function tests were within normal limits. Her ultrasound confirmed foetal demise with hydrophobic

changes. Placenta was anterior with a large hypoechoic heterogeneous mass (11.7×7.5 cm) protruding into amniotic cavity. No blood flow was noted in this mass on doppler imaging. Placental tumour was not invading the myometrium. Liquor was adequate. Ultrasonographic evaluation suggested a Chorioangioma. Later an MRI scan was planned to rule out an aggressive tumour. The scan showed a large heterogeneous placental mass (10×09×10.5 cm) with solid and cystic component. There was no lymphadenopathy or metastasis. She was planned for a vaginal delivery. First and second stage went uneventful with the delivery of 1.8 kg baby girl. Delivery of placenta was hindered by the large tumour mass. Manual removal of placenta and tumour was done under general anaesthesia. On examination, weight of placenta was 350 g while that of tumour was 450 g (Figure-1).

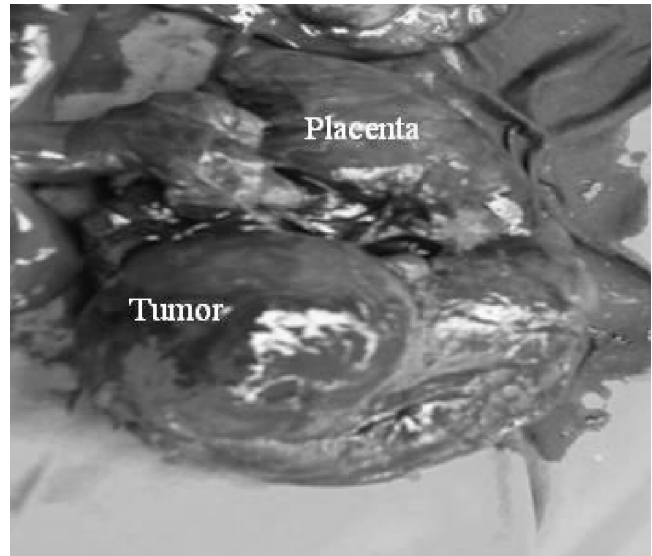


Figure-1: Gross appearance of the tumour.

Histopathology showed a well circumscribed benign lesion. The lesion was composed of closely packed network of vascular spaces which were lined by endothelial cells (Figure-2). These vascular spaces contained blood. Stroma showed hyalinization and fibrosis. A diagnosis of chorioangioma was confirmed on

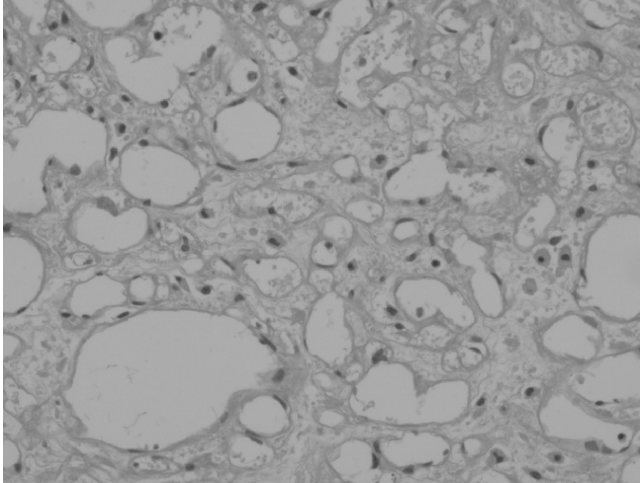


Figure-2: Histopathological view the of tumour.

the basis of these histopathological findings. Her postnatal period was uneventful. She was discharged two days later. Her postpartum follow up after two weeks was unremarkable.

Discussion

Chorioangioma is the most common benign tumour of placenta that arises from chorionic tissues. Most of them are microscopically small and 55% are localized subchorionically. Recognised maternal risk factors associated with chorioangioma are advanced maternal age, hypertension and diabetes mellitus while foetal risk factors include multiple pregnancies and female gender.² The only identified risk factor in this case was female baby.

Most chorioangiomas are of no clinical importance but those larger than 5cm are associated with multiple foetal and maternal complications.³ Maternal risks include mainly polyhydramnios and preterm delivery.^{1,4} The main foetal complications associated with large chorioangiomas include non immune hydrops foetalis, cardiomegaly, congestive cardiac failure, anaemia, thrombocytopenia, consumptive coagulopathy, prematurity and sudden infant death.^{1,2} In our case a large tumour size resulted in foetal hydrops and intrauterine foetal demise.

Prenatal diagnosis of Chorioangioma is very important for the increase surveillance of foetus and mother.¹ Different investigation modalities have been used for the early diagnosis and management of placental tumours, but doppler ultrasound remains the investigation of choice.⁵ Doppler ultrasound not only helps in ruling out other differentials for placental masses such as degenerated myoma, placental teratoma, and incomplete hydatidiform mole, but can also be used for follow up in conservative management of placental masses in early stages of pregnancy.⁶ Strong suspicion of chorioangioma on Doppler ultrasound rules out the need for additional expensive and sophisticated imaging modalities like MRI.

This patient was referred to us at an advanced gestational age from a rural area lacking in facilities and expertise for investigations such as doppler ultrasound. Increasing the awareness of obstetricians and sonologists on large placental masses and associated adverse perinatal outcomes is necessary. In this case failure to recognize the significance of large placental tumour lead to lack of follow up and hence late referral to a tertiary care centre.

Conclusion

Despite its benign nature, chorioangiomas of large size are associated with adverse perinatal outcome and hence need a close follow up.

References

1. Santanu Acharya SP. A Case Of Placental Chorioangioma With The Review Of literature. The Internet Journal of Gynecology and obstetrics. 2005; 5.
2. Guschmann M, Henrich W, Entezami M, Dudenhausen JW. Chorioangioma--new insights into a well-known problem. I. Results of a clinical and morphological study of 136 cases. J Perinat Med 2003; 31: 163-9.
3. Lawrence GC, Rettenmaier MA, Heinemann S, Chang M, Goldstein BH. A precarious pregnancy involving a patient with a large placental chorioangioma: a case report. Arch Gynecol Obstet 2008; 278: 383-6.
4. Batukan C, Holzgreve W, Danzer E, Bruder E, Hosli I, Tercanli S. Large placental chorioangioma as a cause of sudden intrauterine foetal death. A case report. Foetal Diagn Ther 2001; 16: 394-7.
5. Zalel Y, Gamzu R, Weiss Y, Schiff E, Shalmon B, Dolizky M, et al. Role of color Doppler imaging in diagnosing and managing pregnancies complicated by placental chorioangioma. J Clin Ultrasound 2002; 30: 264-9.
6. Prapas N, Liang RI, Hunter D, Copel JA, Lu LC, Pazkash V, et al. Color Doppler imaging of placental masses: differential diagnosis and foetal outcome. Ultrasound Obstet Gynecol 2000; 16: 559-63.