

Giant placental chorioangioma with successful perinatal outcome: rare entity

Pravithra M¹, Praveen NS², Ramadevi K³, Niranjana N^{4,*}

¹Junior Resident, ²Assistant Professor, ³Professor, Dept. of Obstetrics & Gynecology, KVG Medical College & Hospital, DK,
⁴Tutor, Dept. of Paediatrics, Sardar Patel Medical College, Bikaner

***Corresponding Author:**

Email: getniranjan806@yahoo.com

Abstract

Background: Giant chorioangiomas are rare placental tumours, associated with a high prevalence of pregnancy complications and a poor perinatal outcome. We report a case of giant chorioangioma at 31 week and 5 days gestation with severe polyhydramnios. Later presented with PPRM and fetal distress and prompted us to proceed with cesarean delivery. Baby developed RDS, sepsis, anemia, jaundice and required transfusion of blood derivatives, intensive phototherapy and managed in NICU. Baby was in NICU for 28 days and discharged. Mother's recovery was uneventful. Large placental chorioangioma are rare and may lead to adverse perinatal outcomes. Fetal surveillance by ultrasound including Doppler studies is essential to optimize fetal outcome.

Keywords: Placenta, Chorioangioma, Polyhydramnios, Fetal anemia.

Introduction

Chorioangiomas are the most common benign tumors of the placenta originating from primitive angioblastic tissues.^[1] Giant placental chorioangiomas are associated with high prevalence of pregnancy complications and a poor perinatal outcome. Giant chorioangiomas > 5cm in diameter are rare tumours, with a prevalence ranging from 1:9000 to 1:50000 pregnancies.^[2] Giant chorioangiomas are rare placental tumours and we emphasise the need to consider chorioangioma as a cause of non-immune fetal hydrops and microangiopathic haemolytic anemia.^[3] We present a case with large chorioangioma in which the natural history and outcome of pregnancy were evaluated.

Case Report

A 34 year old elderly primigravida was referred at 31 week and 5 days gestation with severe polyhydramnios. Ultrasonography revealed a single fetus, normal growth, no fetal anomalies with moderate polyhydramnios AFI-31 cm, EFW 1802gm, Fetal MCA peak systolic velocity increased suggestive of fetal hyper dynamic circulation (fetal anemia). Placenta showed an echogenic mass, highly vascular tumor (8 cm) near cord insertion. After 2 days, the patient presented with pain abdomen and leaking pv since 6 hr. Her vital signs were normal. Her uterus was tense and distended. Cervix was long and closed and active leaking present. Fetal distress was documented by CTG. She underwent emergency cesarean section in view of fetal distress, PPRM, polyhydramnios. An alive female baby (1660gms) was delivered. In placenta a separate smooth surfaced tumor was noticed. Histology, confirmed it as chorioangioma. Baby developed RDS, sepsis, anemia, jaundice and managed in NICU. Packed RBC was transfused. Baby was in NICU for 28 days and discharged. Mother's course was favorable.



Fig. 1: Ultrasound showing highly vascular mass, Placental chorioangioma measuring 8.5*6.5*7 cm



Fig. 2: Ultrasound showing Polyhydramnios



Fig. 3: Amniotic side of Placenta showing lobulated and vascularized mass suggestive of Placental chorioangioma



Fig. 4: Macroscopic appearance of placental tumour

Discussion

Chorioangioma is a benign placental tumour, defined by the abnormal proliferation of vessels arising from chorionic tissue.⁴ Described for the first time in 1798 by John Clarke, chorioangiomas are the most frequent placental tumours, occurring in 1% of pregnancies.^[5] Usually small in size, they are frequently overlooked and it is discovered upon histological examination, if the placenta is carefully sectioned. Small chorioangiomas tend to remain asymptomatic and rarely complicate the course of the pregnancy, but those larger than 5 cms have a 30% rate of maternal or fetal complications. Fetal risks are hydrops fetalis, cardiomegaly, congestive cardiac failure, anemia, thrombocytopenia, consumptive coagulopathy, prematurity, and sudden infant death. Maternal risks are polyhydramnios and preterm delivery, IUGR, abruption, and Pre-eclampsia. Of the various reported clinical complications, the correlation of chorioangioma with hydramnios and premature delivery is significant as in our case latter being sequela of the hydramnios.^[6,7,8]

Prenatal diagnosis is presumed through sonographic studies with color Doppler, a useful tool in

the differentiation of placental tumours. Close monitoring with Doppler measurement of MCA-PSV, and looking for early signs of hyperdynamic circulation, are essential actions as fetal cardiomegaly is important during the antenatal period. Early detection could prevent subsequent major complications, such as fetal death by antenatal interventions like in utero fetal blood transfusion and early delivery at a reasonable gestational age.

Prenatal treatment of the chorioangioma is still controversial. Expectant management by serial ultrasound is the treatment choice for small and asymptomatic tumors and for large tumors without clinical complication. If complications develop in late pregnancy and the fetus has reached a good maturity, planned delivery could be considered. If polyhydramnios occurs, amnioreduction or transplacental therapy with COX-2 inhibitor must be taken into account as well as intrauterine fetal blood transfusion for the treatment for fetal anemia.^[9] Antenatal embolization of the feeding vessel or of the vascular shunts by endoscopic laser coagulation, alcohol sclerosant injection, or microcoil embolization has been proposed.^[10] If the fetus develops signs of cardiac failure, cesarean section can be adopted to reduce neonatal complications.

Conclusion

Large placental chorioangioma are rare and may lead to adverse perinatal outcomes. Fetal surveillance by ultrasound including doppler studies is essential to optimise fetal outcome. Prenatal diagnosis of these tumours with close follow-up during the antenatal period and early intervention is crucial, and may result in a healthy mother and fetus.

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