Case Report

Successful outcome of giant chorioangioma

Anju Singh[1], Sivaranjani[1], Rashmi Bagga[1], Pradip K. Saha[1], Pranab Dey[2]

[1]Departments of Obstetrics and Gynaecology and [2]Cytopathology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

Abstract

Chorioangioma is the most common benign non trophoblastic tumor of the placenta. It is a rare presentation with incidence of 0.6-1% of all pregnancies. It is associated with feto maternal complications like polyhydramnios, cervical incompetence, preterm labor, increased rate of cesarean delivery, abruptio placentae, malpresentation, postpartum hemorrhage, fetal growth restriction, fetal anemia, fetal thrombocytopenia, non immune hydrops, fetal cardiac failure, cerebral embolism, cerebral infarction, intrauterine fetal and neonatal death. Ultrasound is the gold standard for diagnosis . Here we present a case of giant chorioangioma of 6 * 5 cm with complication of polyhydramnios, preterm labor, abruptio placenta and placenta previa successfully managed with good maternal and fetal outcome.

Keywords: Abruptio placenta, chorioangioma, preterm labour, placenta previa

Introduction

Chorioangioma is the commonest benign tumour of the placenta. It is a rare condition accounting for approximately 0.6 (1%) of all pregnancies[1] that can result in adverse pregnancy outcomes. Giant chorioangioma which is more than 5 cm is very rare and its prevalence ranges from 1:9000 to 1:50,000 of all pregnancies. Increased rate of incidence of chorioangioma is associated with maternal age, diabetes, hypertension, premature labour and multifetal gestation.[2] Here we describe a case of giant chorioangioma with good maternal and perinatal outcomes.

Case Report

A 25-year-old primigravida presented to the antenatal outpatient department with bleeding per vaginum at 23 weeks period of gestation. She had threatened abortion at 8 weeks period of gestation for which she was on progesterone support. She was referred to our institute when she had a second episode of bleeding per vaginum at 23 weeks period of gestation. On examination, her vitals were within normal limits. Uterus corresponds to the 28 weeks period of gestation. Foetal heart rate was 148 bpm. On speculum examination, there was no local cause for antepartum haemorrhage. Ultrasound showed a foetus of 24 weeks period of gestation with polyhydramnios. Placenta was posterior reaching up to os with a well-defined lobulated hypoechoic lesion of 6.2 cm × 4.4 cm at the edge of the placenta, an umbilical cord was attached to it [Figure 1a]. The lesion was highly vascular on Doppler imaging. The amniotic fluid index was 22. Diagnosis of placenta previa with chorioangioma was made. On magnetic resonance imaging, placenta was located posteriorly along the left lateral wall reaching up to os. There was T2 hypointense lesion noted at the cord insertion site of 6.4 cm × 4.1 cm. She was on regular follow-up for foetal growth monitoring as chorioangioma is associated with a complication of foetal growth restriction. The middle cerebral artery peak systolic velocity was 1.1 multiples of median for that gestational age. Patient was admitted at 30 weeks period of gestation in view of antepartum haemorrhage. She received steroids for foetal lung maturity. Three days after admission she had preterm labour and bleeding per vaginum. Emergency lower uterine segment

Address for correspondence: Dr. Sivaranjani, Department of Obstetrics and Gynaecology, Postgraduate Institute of Medical Education and Research, Chandigarh - 160 012, India.
E-mail: Sivaranjani645@gmail.com

Received: 19-11-2020 **Revised:** 02-02-2021
Accepted: 12-03-2021 **Published:** 31-05-2021

Access this article online

Quick Response Code:

Website: www.jfmpc.com

DOI: 10.4103/jfmpc.jfmpc_2462_20

How to cite this article: Singh A, Sivaranjani, Bagga R, Saha PK, Dey P. Successful outcome of giant chorioangioma. J Family Med Prim Care 2021;10:2038-40.

caesarean section was done. Live born girl baby of 1.2 kg was delivered with Apgar of 7 and 9. Placenta was posterior reaching up to os. Another mass of about 6 cm × 5 cm was present over the internal os attached to the main placental mass. There was retro placental clot of 50 cc. Placenta was 15 cm × 16 cm × 4 cm with a weight of 530 g. On gross examination, there was a separate mass of about 6 cm × 5 cm was seen in the foetal surface of the placenta [Figure 1b]. The umbilical cord was attached to it. It was soft in consistency and red tan on the cut surface. On histopathological examination, there was evidence of chorioangiosis in the form of more than 10 capillaries in 10 terminal villi confirming the diagnosis of placental chorioangioma [Figure 1c]. The patient was discharged with the baby on day 5 in stable condition. On postpartum follow-up, mother and baby are doing well.

Discussion

Chorioangioma arises from abnormal proliferation of vessels in the chorionic tissue. Chorioangioma more than 5 cm is giant chorioangioma and it is associated with maternal and foetal complications. Maternal complications include polyhydramnios, cervical incompetence, preterm labour, increased rate of caesarean section, Abruptio placentae, malpresentation and postpartum haemorrhage.[3] This index case had polyhydramnios, preterm labour, placenta previa and postpartum haemorrhage. Foetal complications include foetal growth restriction, haemolytic anaemia, thrombocytopenia, non-immune hydrops, foetal cardiac failure, cerebral embolism, cerebral infarction, intrauterine foetal and neonatal death.[4] Cardiac failure develops in the foetus because of heavy flow in the low-resistance vasculature in the chorioangioma which acts as an arteriovenous shunt. Ultrasonography is the gold standard for the diagnosis of placental chorioangioma.[5] It is seen as a well-defined echogenic mass separate from the rest of the placenta and protruding into the amniotic cavity near the insertion of the cord.[6] Doppler helps in differentiation of chorioangioma from degenerative fibroid and other placental tumours. On the Doppler, the feeder vessel has the same flow as that of the umbilical artery but low-resistance flow due to arteriovenous shunt.[7] Chorioangioma diagnosed before viability requires interventions like laser coagulation of feeder vessels, sclerosis with alcohol, IntraUterine foetal transfusions and devascularisation.[8] Massive polyhydramnios can be treated with therapeutic amniocentesis and indomethacin.

Primary care physicians should have the suspicion of chorioangioma if there are antepartum haemorrhage, polyhydramnios and a placental mass on imaging. Woman with chorioangioma has to be referred to an institute with a foetal medicine unit and a good neonatal unit as some cases may require intrauterine interventions.

Key Points

1. Chorioangioma of more than 5 cm is giant chorioangioma which is associated with adverse pregnancy outcomes.
2. Antepartum haemorrhage, polyhydramnios and placental mass should arise the suspicion of chorioangioma.
3. Management of giant chorioangioma demands a good foetal medicine unit and a good neonatal care unit.
4. Intensive follow-up with middle cerebral artery Doppler to detect foetal anaemia and foetal parameters for the detection of foetal growth restriction is required.

This article is to specifically highlight the importance of imaging in the diagnosis, the need for a foetal medicine unit, cautious follow-up with monitoring of middle cerebral artery Doppler and a multidisciplinary approach involving the obstetrician, radiologist and neonatologist.

Conclusion

Chorioangioma is a benign vascular malformation of the placenta, depending on the size of the lesion can be associated with maternal and foetal morbidity. Any placental mass detected on ultrasound, which is suspected of chorioangioma, needs a regular antenatal follow-up for early detection of foetal complications like foetal growth restriction and non-immune hydrops.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

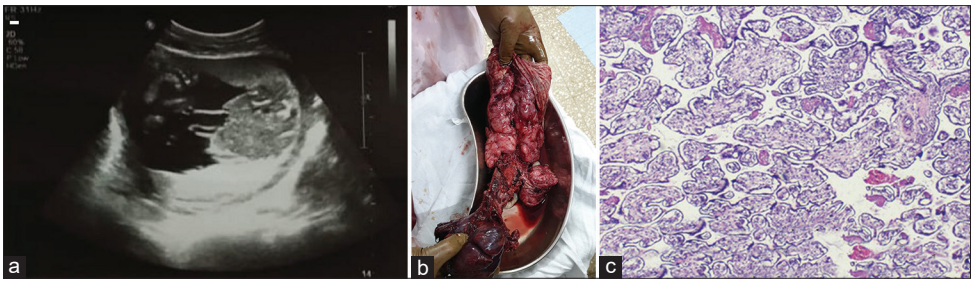

Figure 1: (a) Ultrasonography showing echogenic mass different from rest of placenta with umbilical cord attached to it. (b) Separate mass of about 6 cm × 5 cm seen on the foetal surface of the placenta. (c) Chorioangiosis in the form of more than 10 chorionic villi in 10 terminal villi

References

1. Hirata GI, Masaki DI, O'Toole M, Medearis AL, Platt LD. Color flow mapping and Doppler velocimetry in the diagnosis and management of a placental chorioangioma associated with nonimmune fetal hydrops. Obstet Gynecol 1993;81:850-2.
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. Harman CR. Amniotic fluid abnormalities. Semin Perinatol 2008;32:288-94.
4. Goverman J, Mathews K, Goldstein R, Holavanahalli R, Kowalske K, Esselman P, *et al*. Adult contractures in burn injury: A burn model system national database study. J Burn Care Res 2017;38:e328-36.
5. Abdalla N, Bachanek M, Trojanowski S, Cendrowski K, Sawicki W. Placental tumor (chorioangioma) as a cause of polyhydramnios: A case report. Int J Womens Health 2014;6:955-9.
6. Kesrouani AK, Safi J, El Hajj MA. Rapid evolution of placental chorioangioma: Natural progression and outcome. J Ultrasound Med 2013;32:545-8.
7. Sepulveda W, Aviles G, Carstens E, Corral E, Perez N. Prenatal diagnosis of solid placental masses: The value of color flow imaging. Ultrasound Obstet Gynecol 2000;16:554-8.
8. Wanapirak C, Tongsong T, Sirichotiyakul S, Chanprapaph P. Alcoholization: The choice of intrauterine treatment for chorioangioma. J Obstet Gynaecol Res 2002;28:71-5.