

Case Report

Chorioangioma of placenta: A Case Report

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Abstract

Placental chorioangiomas are benign tumors of the placenta found in 1% of pregnancies. Large chorioangiomas may cause serious complications such as fetal anemia, hydrops and fetal death. With the increasing use of ultrasound, prenatal recognition of these tumors is becoming more common. Here we report a case of chorioangioma of placenta with its related complications in fetus.

Keywords: Placental Chorioangioma; Fetal Anemia; Hydrops Fetalis; intrauterine death; Tumors

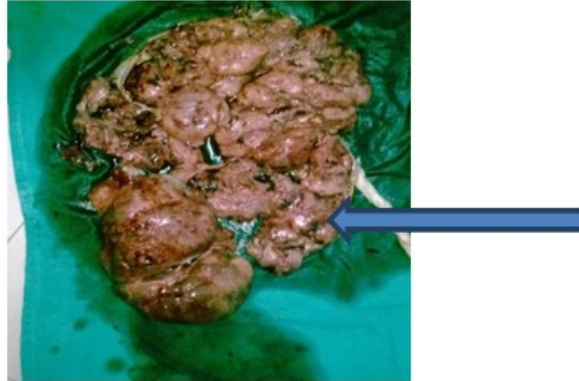
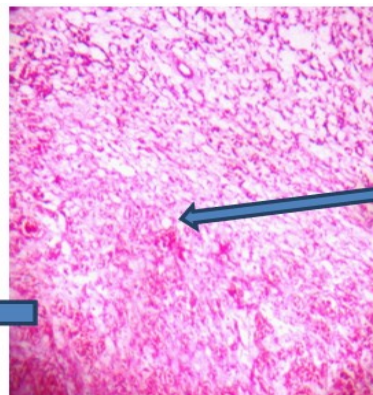
1. Introduction

Placental chorioangioma is the most frequent benign vascular placental tumor, and the prenatal diagnosis can be made by ultrasound. With color flow and pulsed Doppler, ultrasound is helpful for the follow-up and the prognosis of this tumour associated with severe maternal and fetal consequences. The majority of pregnancies with chorioangiomas are asymptomatic. Giant chorioangiomas are associated with maternal and fetal complications such as growth restriction, cardiomegaly, congestive heart failure, fetal anemia, thrombocytopenia, non-immune hydrops and intrauterine fetal death. There are several modalities of treatment published to date with various results. Here we report a case of chorioangioma with a brief review on the possible several complications.

2. Case Report:

A 32 year old primigravida reported to the Antenatal clinic of Yenepoya Medical College Hospital during the 28th week of pregnancy. She had regular ANC's outside but no investigations done. Uterine fundal height was appropriate for the gestational age. Sonography was performed at 28 weeks showed a single live fetus of 26-27 weeks in cephalic presentation and an anterior fundal placenta. A well-defined isoechoic space occupying lesion measuring 6.5 x 4.9cm noted in the placenta bulging into amniotic cavity at the site of umbilical cord insertion was interpreted as consistent with a chorioangioma. Amniotic fluid index was 19cm with no obvious fetal anomalies. The pregnancy was uneventful until 34 weeks when she came with reduced fetal movements. The uterine fundal height was 32 weeks size.

USG showed Single live intrauterine fetus with 28-29 weeks gestation in breech presentation with AFI 8cm with fetus showing mild pericardial effusion and Chorioangioma measuring 9x8cm. Patient was admitted on the same day and Injection Betamethasone 12mg IM 12th hourly 2 doses given. The Non stress Test showed non reassuring fetal heart rate pattern for which emergency LSCS was done. A female baby weighing 1400gms was delivered. Apgar was 2 and 3 at 1 and 5 minutes respectively. Liquor was meconium stained. Baby died 2 hrs after the delivery and cause of death was preterm IUGR with acyanotic heart disease with pericardial effusion with non-immune hydrops. Histological analysis confirmed the diagnosis of placental chorioangioma (**Figure 1 and 2**). Microscopic examination showed that the chorioangioma was composed of predominantly capillary vascular areas in the fibroid matrix (**figure 3**)

Fig 1: Gross appearance of placenta with chorioangioma**Fig 2: Cut section of placenta with chorioangioma****Fig 3: Histology of chorioangioma**

capillary spaces filled with areas of hemorrhage

3. Discussion

Chorioangioma is a benign vascular tumor of the placenta arising from primitive chorionic mesenchyme. Large (>4 cm) chorioangiomas are much rarer and are often associated with maternal and/or fetal complications.¹

Placental chorioangiomas occur in 1% of pregnancies. Large chorioangiomas may cause serious complications such as fetal anemia, hydrops and fetal death.²

Chorioangiomas may be diagnosed early in pregnancy by ultrasound examination. Color Doppler ultrasound plays an important role in the prenatal evaluation of solid placental masses. This technique allows the identification of those cases at increased risk of pregnancy complications which need close monitoring throughout gestation.^{3,4}

Placental chorioangioma can induce several complications such as premature labor, fetal death, polyhydramnios and neonatal asphyxia. The main fetal risks include non-immune hydrops fetalis, cardiomegaly, congestive cardiac failure, anaemia, thrombocytopenia, consumptive coagulopathy, prematurity and sudden infant death. Color Doppler is helpful in differential diagnosis of placental masses particularly placental chorioangioma. Placental chorioangioma is varied in size with deep red in appearance for most of them and maybe yellow or gray white due to mixed with other tissues or lack of blood supply.^{5,6}

Since chorioangiomas are often associated with significant arterio-venous shunting within the placenta, several fetal hemodynamic compensatory mechanisms are initiated. Close surveillance of pregnancy and pregnancy termination by cesarean section at the earliest signs of fetal cardiac decompensation are indicated to reduce fetal and neonatal

complications. Novel intrauterine treatment options include intravascular transfusion, fetoscopic devascularization, microcoil embolization, and intravascular injection of absolute alcohol.⁷ In case of severe fetal anaemia, diagnosed best by colour flow Doppler of the middle cerebral artery, fetal blood sampling and intrauterine transfusion may be beneficial to preserve fetal health until maturity is reached. Polyhydramnios has been treated by therapeutic amniodrainage⁸ and indomethacin therapy⁹.

4. Conclusion

Placental chorioangioma is associated with an increased risk of pregnancy complications. Antenatal diagnosis by ultrasound and Colour Doppler is the investigation of choice in accurate diagnosis of chorioangioma. Close monitoring and follow up is recommended, even in those cases with no associated complications at the time of the diagnosis.

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