Volume : 4 | Issue : 10 | October 2015 • ISSN No 2277 - 8179

Research Paper

Chorioangioma, a Case Report.

Medical Science

KEYWORDS : chorioangioma,early diagnosis,fetal outcome

Dr Mukti Harne G33, girls hostel, PDVVPF medical college,Ahmednagar

Dr Sumedha Harne G33, girls hostel, PDVVPF medical college,Ahmednagar

ABSTRACT

Background: Chorioangioma is a benign tumour of the placenta consisting of blood vessels and stroma that proliferate beyond normally developing chorionic villi .

Aim: need of early diagnosis for better management of mother and child well being.

Material & methods:A case of a 25 years old primigravida with 32 weeks of gestation with Ultasoundgraphy showing a placental tumor.The journey from detection to outcome has been emphasized in this report.

Conclusion: Incidence of this condition is around 1 %. This type of tumour has no malignant potential.High fetal death in a case of large chorioangioma warrants institutional and timely delivery as seen in our case.Ultrasound including Colour Doppler imaging provides the mainstay for its diagnosis, foetal monitoring and appropriate antenatal management.

Result : Though the presentation for this condition may vary but vigilant and prompt action is required to prevent antenatal complication and to ensure the healthy outcome.

Introduction

Chorioangioma is a benign angioma of placenta arising from chorionic tissue. Large chorioangioma has unfavourable effects on both mother and fetus,it is a relatively rare problem which most often goes unnoticed. However, it has potentially serious fetal risks and so the pregnancy needs to have regular surveillance. The larger the size of the tumor the more is the chance of developing complications. We present a case with large chorioangioma without any serious complications and a successful outcome.(1)

Chronic placental insufficiency is the commonest cause for fetal growth restriction. Rare placental causes affecting fetal outcome are partial mole, chorioangioma, and placental teratoma. Large chorioangioma has adverse effects on both mother and fetus. We report a huge chorioangioma resulting in polyhydramnios, preterm labor, and neonatal death due to congestive cardiac failure. (3)

We report on a large asymptomatic placental chorioangioma, identified as an area of reduced echogenicity on ultrasound at 32 weeks' gestation. Despite the large size, it was not associated with the usual maternal or fetal complications expected with a chorioangioma of that size, possibly because of thrombosis and tumour degeneration.

Case Report

We describe a rare giant placental chorioangioma in a patient who had a favorable outcome with close prenatal surveillance in a 25-year-old primigravida who was referred to our clinic for ultrasound evaluation of a suspected placental mass at 32 weeks' gestation. A detailed ultrasound scan revealed a well-circumscribed, echogenic lesion measuring 7x6.5 cm and protruding into the amniotic cavity. A diagnosis of placental chorioangioma was made and intensive prenatal surveillance was scheduled. A small-for-gestational age (2,100 g) but normal male neonate was delivered at 37 weeks by cesarean section and discharged from hospital on the third day of the delivery. A giant chorioangioma may not cause any adverse effect to the fetus and may not require any medication or invasive intervention.

A 25-year-old primi gravida, presented to us at 32 weeks gestation with history of some abnormality in ultrasound as told to them by private practitioner to whom they have been seeing since pregnant.On examination,vitals were stable, abdomen was 32 week. She was neither diabetic nor anemic.

Laboratory data were normal,including LFT/KFT/coagulation profile and routine ANC.Ultrasound showed a single live fetus corresponding to 32 weeks of gestation ,cephalic,with normal amniotic fluid index. There were no gross structural abnormalities. Placenta was on the posterior wall upper segment, grade II. A well-defined non homogenous mass seen in placenta measuring 7cm × 6.5cm different from the rest of the placenta was seen bulging on the fetal side ? chorioangioma mild IUGR seen with AC 30 week,BPD/FL 32week,Umbilical artery doppler normal,uterine artery early diastolic notch seen.(fig 1)

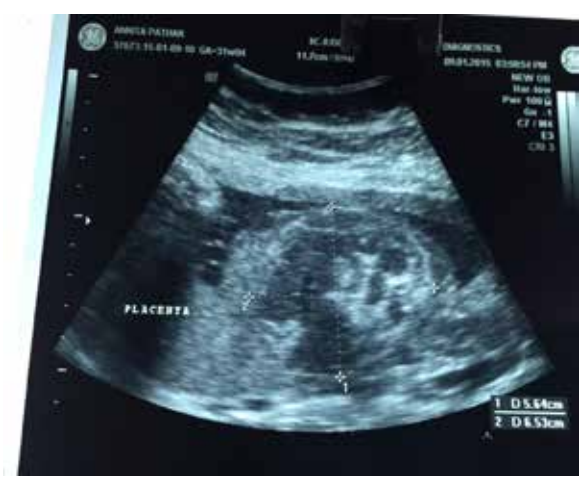

Fig 1 : Single live fetus corresponding to 32-33 weeks in cephalic presentation and longitudinal lie with mild IUGR(AC = 30 + 4 weeks),AFI 12 cm, Placenta post and US, grade 1 maturity. A 67 X 63 mm non homogenous mass seen in placenta – Placental Tumor ? Chorioangioma.

Color Doppler: Increased resistance with early diastolic notch in left uterine artery at maternal end

Level 2 scan was normal.Fetal anatomy was considered to be normal; in particular, there was no evidence of angioma in the fetal liver.Patient was taken for elective LSCS at 37 week POG and delivered male baby weighing 2.1 Kg with Apgar scores 9 and 10 at 1 and 5 minutes, respectively. Intraoperatively, placenta weighed 1 Kg. A lobular mass measuring 7 cm × 6cm was attached to the fetal surface of placenta with a pedicle.(fig 2)

Volume : 4 | Issue : 10 | October 2015 • ISSN No 2277 - 8179

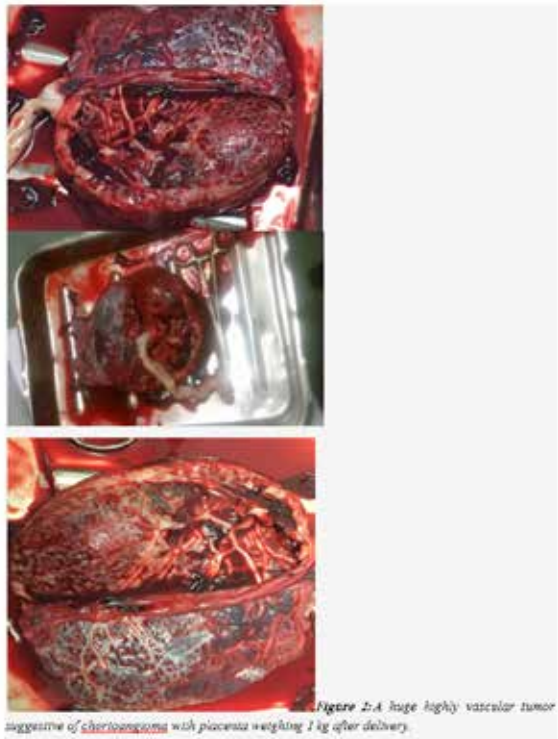

Figure 2: A huge highly vascular tumor suggestive of chorioangioma with placenta weighing 1 kg after delivery.

Histological analysis confirmed the diagnosis of placental chorioangioma .Microscopic examination showed that the chorioangioma was composed of predominantly capillary vascular areas in the fibroid matrix. .(fig 3) Macroscopically, the placenta was 7x6 cms and weighed 1000 grams.

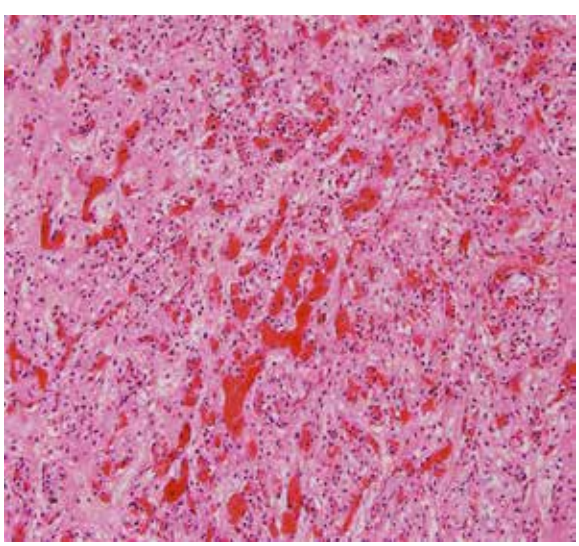

Fig 3 :Histopathological examination confirmed the diagnosis of Chorioangioma. HPE showed Chorioangioma was composed predominantly of capillary vascular areas in the fibroid matrix.

Discussion

Placental chorioangioma is a benign vascular tumor detected in 1 percent of placentas after systematic examination. Only 10% of these are macroscopically visible. Most of these tumors are small and discovered only by microscopic examination and have no adverse impact on the fetus. Larger tumors are rare and when above 5 cm in diameter, they are associated with serious complications. These tumors are found accidentally by ultrasound examination (11).The vascularization of the tumor is a determinant factor of perinatal outcome. Where the tumor is avascular, no specific complications should be expected.When the tumor is vascularized, and in particular if it contains numerous large vessels, serial ultrasound and Doppler examinations are warranted to detect early features of fetal congestive heart failure.(12)The detection of ultrasound findings of heart failure or suggestive signs of anemia as cardiomegaly, enlargement of the liver and abnormal umbilical vein. Doppler sonograhy may be useful for diagnostic purposes before NHF developed signs and symptoms. Large placental chorioangiomas are rare and the prognosis is bad when a big tumor causes fetal hemodynamic changes with NIHF(non immune hydrops fetalis), but treatment of heart failure may be promising in these newborns and complete recovery is achieved in some cases.

Clinical Features and Complications

Tumors of less than 5 cm are usually asymptomatic and unlikely to cause maternal and fetal complications. Large tumors probably act as arteriovenous shunts and cause complications. Maternal complications are *preeclampsia*, *preterm labour*, *placental abruption*, and *polyhydramnios.* Of the various reported clinical complications, the correlation of chorioangioma with hydramnios and preterm delivery is significant, latter being a sequelae of the hydramnios. *Fetal congestive heart failure* may develop because of the increased blood flow through the low resistance vascular channels in the chorioangioma acting as an arteriovenous shunt. Other associated complications are *hydrops*, *hemolytic anemia*, *congenital anomalies*, *fetal thrombocytopenia*,*cardiomegaly*, and *growth restriction.*

Ultrasound Diagnosis

Clarke in 1978 described the first case of chorioangioma [4]. Antenatal ultrasound was reported in 1978, and this has made diagnosis and follow up possible before delivery [2]. *This also helps in close fetal monitoring and hence timely delivery.* Grayscale findings are well-defined complex echogenic mass different from the rest of placenta and tumor *protrudes into amniotic cavity near umbilical cord insertion.* Use of Doppler to differentiate from placental teratoma, blood clot, and leiomyoma was first demonstrated by Bromley and Benacerraff [5]. On Doppler, feeding vessel usually has same pulsatile flow as that of umbilical artery but may have arteriovenous shunt causing low resistance flow [6]. Unfortunately, we could not do Doppler in our case due to lack of facilities. Even MRI has been done in tumors that look similar to myoma in ultrasound. T2 images of MRI will be similar to hemangioma and hence diagnosis is possible [7].

Interventions

Chorioangioma with complications before fetal viability requires interventions. Various techniques with varying success rates have been tried such as serial fetal transfusions [8], fetoscopic laser coagulation of vessels supplying the tumor [9], chemosclerosis with absolute alcohol [10], and endoscopic surgical devascularization. Polyhydramnios is treated with therapeutic amniocentesis and maternal indomethacin therapy. Steroid administration for acceleration of fetal lung maturity before 34 weeks is indicated.

Prognostic Factors

Large chorioangioma associated with polyhydramnios leads to high perinatal morbidity and mortality, like in this case. Postpartum hemorrhage is a well-known complication in mother.

Differential Diagnosis

Chorioangioma is often confused with placental teratoma, degenerated myoma, and blood clot. Chorioangioma is differentiated from the rest by demonstration of vascular channels similar to fetal vessels. Echo pattern of blood clot differs with time, while chorioangioma remains same. Partial mole has diffuse pattern and myoma is seen in maternal surface [2].

Conclusion

High fetal death in a case of large chorioangioma warrants institutional and timely delivery as seen in our case. Antenatal diagnosis is by ultrasound, and Doppler would have been the investigation of choice in accurate diagnosis of chorioangioma. Regular follow up helps in timely diagnosis and intervention.

Chorioangioma of the placenta has potentially serious perinatal risks and so the pregnancy needs to have regular surveillance. The chance of developing complications is directly related with the tumor size.

REFERENCE

1. P. Kuhnel, "Placental chorioangioma," Acta Obstetricia et Gynecologica Scandinavica, vol. 13, pp. 143–145, 1933. 2. L. A. Bracero, M. Davidian, and S. Cassidy, Chorioangioma: diffuse angiomatous form. 1993-09-18–11 Chorioangioma: diffuse angiomatous form Bracero, www.thefetus.net. 3. A. A. Marchetti, "A consideration of certain types of benign tumors of the placenta," Surgery, Gynecology & Obstetrics, vol. 68, pp. 733–743, 1939. 4. S. Asokan, A. K. Chad, and R. Gard, "Prenatal diagnosis of placental tumor by ultrasound," Journal of Clinical Ultrasound, vol. 6, pp. 180–181, 1978. 5. B. Bromley and B. R. Benacerraf, "Solid masses on the fetal surface of the placenta: differential diagnosis and clinical outcome," Journal of Ultrasound in Medicine, vol. 13, no. 11, pp. 883–886, 1994.View at Scopus 6. W. Sepulveda, G. Aviles, E. Carstens, E. Corral, and N. Perez, "Prenatal diagnosis of solid placental masses: the value of color flow imaging," Ultrasound in Obstetrics and Gynecology, vol. 16, no. 6, pp. 554–558, 2000. View at Publisher • View at Google Scholar • View at Scopus 7. T. Mochizuki, T. Nishiguchi, I. Ito et al., "Case report of antenatal diagnosis of chorioangioma of the placenta: MR features," Journal of Computer Assisted Tomography, vol. 20, no. 3, pp. 413–416, 1996.View at Publisher • View at Google Scholar • View at Scopus 8. Y. Zalel, B. Weisz, R. Gamzu, E. Schiff, B. Shalmon, and R. Achiron, "Chorioangiomas of the placenta: sonographic and doppler flow characteristics," Journal of Ultrasound in Medicine, vol. 21, no. 8, pp. 909–913, 2002. View at Scopus 9. R. A. Quintero, H. Reich, R. Romero, M. P. Johnson, L. Gonçalves, and M. I. Evans, "In utero endoscopic devascularization of a large chorioangioma," Ultrasound in Obstetrics and Gynecology, vol. 8, no. 1, pp. 48–52, 1996. View at Scopus 10. C. Wanapirak, T. Tongsong, S. Sirichotiyakul, and P. Chanprapaph, "Alcoholization: the choice of intrauterine treatment for chorioangioma," Journal of Obstetrics and Gynaecology Research, vol. 28, no. 2, pp. 71–75, 2002. View at Publisher • View at Google Scholar • View at Scopus 11. Hirata GI, Masaki DI, O'Toole M, et al. Color flow mapping and Doppler velocimetry in the diagnosis and management of a placental chorioangioma associated with nonimmune fetal hydrops. Obstet Gynecol. 1993;81(5):850–2. 12. Vaisbuch E, Romero R, Kusanovic JP, et al. Three-dimensional sonography of placental mesenchymal dysplasia and its differential diagnoses. J Ultrasound Med.2009;28(3):359–68.