Chorioangioma of Placenta

Rubby Das,[1] Nilam Subedi,[1] Gahana Gurung[1]

[1]Department of Obstetrics and Gynaecology, Universal College of Medical Sciences and Teaching Hospital, Bhairahwa, Nepal.

ABSTRACT

Chorioangioma of placenta is the commonest benign tumour of the placenta. It consists of a benign angioma arising from chorionic tissue. We report a case of placental chorioangioma which was diagnosed in the post partum period in a patient with polyhydramnios who went into preterm labor and delivered a premature baby.

Keywords: *chorioangioma; placenta; polyhydramnios.*

INTRODUCTION

Placental chorioangioma being the commonest benign tumor of the placenta has an incidence of around 1% when examined microscopically and is seen more frequently in multiple pregnancies and in female babies.[1] Chorioangiomas that are clinically evident are less common with an incidence between 1:3500 and 1:9000 births.[1] Chorioangioma is believed to arise by 16th day of fertilization, although there is no documentation of the tumor in the first trimester.[2] In the majority of cases, they are small or microscopic, and of no clinical significance. If it increases in size >5 cm then it may be associated with serious maternal and fetal complications.[1]

CASE REPORT

A 28-year-old second gravida, with one previous full term normal vaginal delivery 3 years back without any antepartum, intrapartum or postpartum complications in her previous pregnancy, presented to us at 33 weeks and 6 days of gestation with complain of gradual abdominal distension and vague pain abdomen since couple of days. She perceived adequate fetal movement. On admission her blood pressure was 140/90 mm Hg, pulse 80 b/min regular, respiratory rate 18/min. Her general condition was fair without any signs of pallor, icterus, cyanosis, oedema or dehydration. On systemic examination, per abdomen, uterus was term size with longitudinal lie, cephalic presentation, fetal parts were not easily palpable, there were two uterine contractions lasting for 15 seconds each in 10 minutes and fetal heart sound could not be localized by stethoscope. On Doppler fetoscope, Fetal heart rate was 140 beats/min. On per speculum examination, cervix was healthy with no evidence of vaginal bleeding or leakage. On per vaginal examination, the cervical os was patulous, cervix was soft posterior, early effaced, membrane intact with show absent.

She was admitted and investigations sent. She received a single dose of Injection Betamethasone 12mg I/M stat. Her haemoglobin was 9.9 gm%, blood group O positive, HIV and HbsAg were non reactive. Ultrasound showed a single live fetus corresponding to 32 weeks and 1 day of gestation with polyhydramnios (AFI: 27 cm). There were no gross structural abnormalities. Placenta was located on the posterior wall of upper segment with grade II maturity. The estimated fetal weight was 1866gms.

Patient went into spontaneous preterm labor and delivered a premature male baby weighing 1500 gm with APGAR scores 6/10 and 7/10 at 1 and 5 minutes,

Correspondence: Dr. Rubby Das, Department of Obstetrics and Gynaecology, Universal College of Medical Sciences and Teaching Hospital, Bhairahwa, Nepal. Email: rubbydas@gmail.com, Phone: +977-9843017225.

respectively. The intrapartum and post partum period was uneventful. Placenta weighed 650 gm. A well defined lobular mass of yellowish white in colour, firm in consistency and measuring 8cm × 9cm was attached to the fetal surface of placenta as shown in (Figure 1).

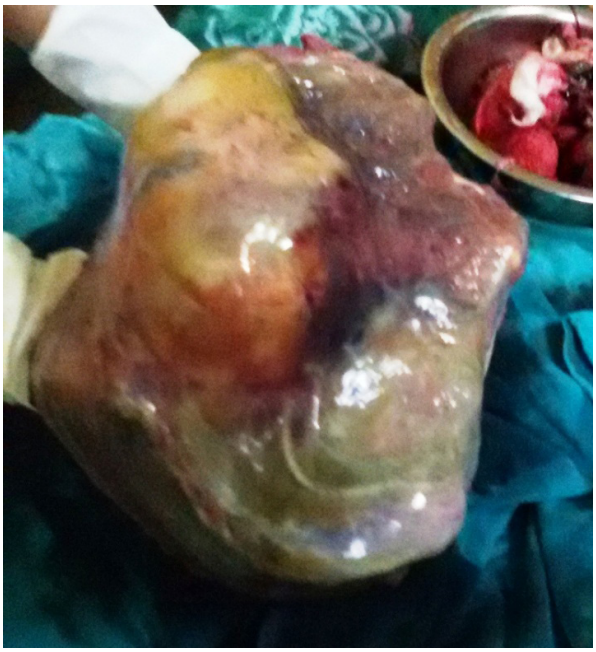

Figure 1. Macroscopic appearance of placenta.

Histopathological study of placenta revealed a greyish brown rough surface on maternal side with a nodular brown to creamy-white mass noted in the marginal end covering 20% of total area measuring 9x8x5.5 cm. The microscopic description of cut section show the mass with increased proliferation of small calibered blood vessels lined by flattened endothelial cells along with larger feeding vessels separated by fibrous septa. Areas of infraction were also seen along with scattered lymphocytic infiltration. Sections from the maternal surface showed abundant villi lined by inner cytotrophoblastic cells and outer syncytiotrophoblastic cells with central mesenchyma. Sections from fetal surface show amniotic membrane lined by single layer of bland cuboidal cells with thickened basement membrane. The innermost chorionic membrane consists of collagenous tissue with very few chronic inflammatory cells infiltrate, thus suggestive of angiomatous pattern of chorioangioma of placenta.

DISCUSSION

Chorioangioma of placenta is the most common benign tumour of the placenta. The pathogenesis of these neoplasms is controversial; however, they can originate from any part of the placenta excluding the trophoblastic tissues.[3] Three histological patterns of chorioangiomas have been described: angiomatous, cellular and degenerate.[4] The angiomatous is the most common, with numerous small areas of endothelial tissue, capillaries and blood vessels surrounded by placental stroma. The cellular pattern has abundant endothelial cells within a loose stroma. The degenerate pattern has calcification, necrosis or hyalinization.

These lesions are sometimes classified as placental hamartomas rather than true neoplasia.[5] There is no malignant potential.

Large tumors probably act as arteriovenous shunts and cause complications. Maternal complications are preeclampsia, preterm labour, placental abruption, polyhydramnios and postpartum haemorrhage.[6] The correlation of chorioangioma with hydramnios and preterm delivery is found to be significant among the various reported clinical complications. 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 fetal complications are nonimmune hydrops, fetal demise, haemolytic anemia, congenital anomalies, fetal thrombocytopenia, cardiomegaly, intrauterine growth restriction and neonatal death.[7]

Antenatal ultrasound examination has made diagnosis and follow up possible before delivery. In the present case, the placental tumor was not diagnosed in the Ultrasound documentation rather polyhydramnios was reported. Doppler ultrasound examination is the gold standard in primary diagnosis of hemangioma. But unfortunately, we could not conduct Doppler USG in the present case as delivery was imminent. Magnetic resonance imaging (MRI) is used only in suspicious cases, while the computed tomography (CT) technique has a limited role in the diagnosis of the placental angioma, mainly because of the high radiation risk and poor tissue differentiation.

Chorioangioma with complications before fetal viability requires interventions. Alcohol injection, laser coagulation of feeding vessels and micro coil embolization of the feeding vessels are described for women with fetal complications like hydrops.[8,9] Large Chorioangioma associated with polyhyadramnios leads to high perinatal morbidity and mortality. Polyhydramnios is treated with therapeutic amniocentesis and maternal indomethacin therapy.[7] Steroid administration for acceleration of fetal lung maturity before 34 weeks is indicated. If complications appear late in pregnancy, delivery is the choice. A recent literature review concluded that further

studies are needed to refine the appropriate selection criteria that will justify the risk of invasive in utero therapy for chorioangiomas.[10] However in our patient not much could be done as the clinical course was very rapid and she delivered within 18 hrs of admission.

Conflict of Interest: None.

Consent: JNMA Case Report Consent Form was signed by the patient and the original is attached with the patient chart.

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