Case Report

Rare Case of Placental Mesenchymal Dysplasia

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Abstract

Placental mesenchymal dysplasia is a rare benign condition complicating pregnancy. Fetus usually appears normal, with no significant abnormality. However association with Beckwith Wideman syndrome has been reported. Placenta often shows cystic areas in ultrasound and has to be differentiated from molar pregnancy. Placental villous chorangiosis is the hallmark of placental mesenchymal dysplasia.

Key words: Placental Mesenchymal Dysplasia, Beckwith Wideman Syndrome, Cystic Placenta.

Introduction

Placental mesenchymal dysplasia is also known as mesenchymal stem villous hyperplasia. It is a rare placental vascular anomaly initially described by Moscoso et al. in 1991[1]. From the literature review, 64 cases of placental mesenchymal dysplasia have been reported [1]. Most of them presented with enlarged cystic placenta. Pregnancy complications included intrauterine growth restriction (IUGR; 33%), intrauterine fetal death (IUFD; 13%), and preterm labor (33%). Pregnancies without fetal anomalies, IUGR, IUFD or preterm labor had normal neonatal outcomes despite Placental mesenchymal dysplasia (9%).

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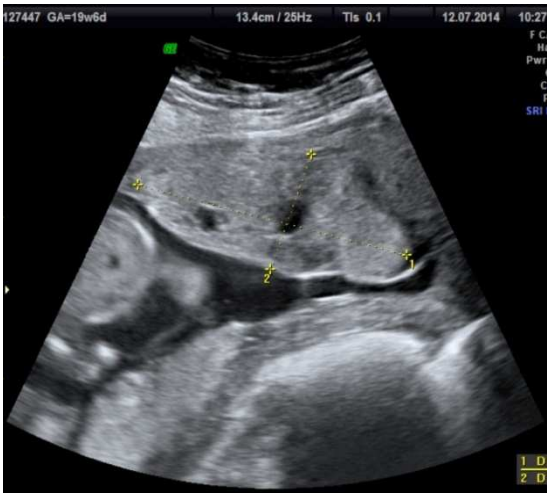
30 year old second gravida was referred for routine antenatal USG. 7 weeks USG showed dichorionic diamniotic twin live gestation. 10 weeks USG showed one live fetus and other vanishing.19 weeks USG showed well defined heterogenous predominantly hypoechoic placenta like structure measuring 9.0 x 3.8 cm, with cystic spaces and minimal vascularity on the anterior aspect of lower part of body of uterus a little far from the placenta which was seen on the posterior aspect of fundus. No further change in size noted in subsequent scan till 38 weeks. There was no evidence of fetal growth restriction. Through out the period of gestatin maternal blood pressure and blood sugar values were normal.



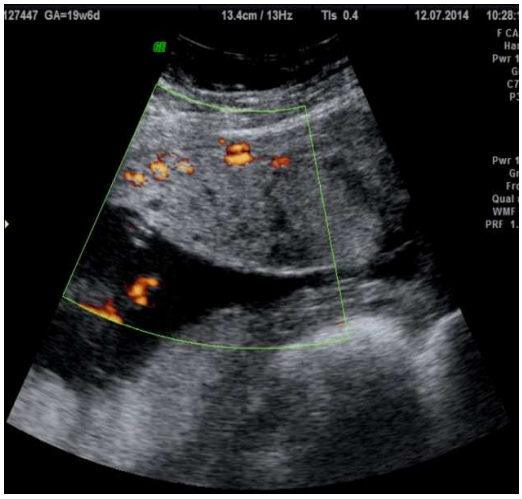


Fig 1: Hypoechoic structure with cystic sreas on the anterior aspect, original placenta on posterior aspect.

Fig 2: Minimal vascularity in the abnormal structure.

Elective LSCS was planned at 38 weeks. Placenta was expelled in toto along with the cystic structure. Live female baby 2.8 kg with no congenital anomalies was delivered.

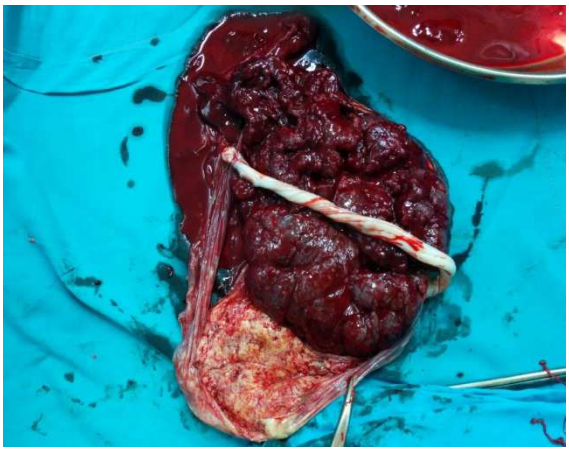


Fig 3: Abnormal structure in USG is seen as yellowish structure attached to the placenta

Prominent vessels on the fetal side of placenta

Discussion

Placental mesenchymal dysplasia is a rare benign condition complicating pregnancy. Ultrasound findings demonstrate a placenta with cystic changes and a normal fetus. Exact incidence of Placental mesenchymal dysplasia (PMD) is unknown because of its rarity with a 3.6:1 female: male preponderance. The fetus with PMD can develop normally without severe maternal complications.

It is important to distinguish PMD from a partial mole with an abnormal triploid fetus, because this diagnosis may result in pregnancy termination. It is challenging to distinguish PMD from a complete mole with co-twin, which carries significant morbidity to the mother (persistent GTD). PMD is associated with Beckwith-Wiedemann syndrome (macrosomia, exomphalos, macroglossia, omphalocele, craniofacial features, and ear anomalies) in 25% of cases [2].

Prematurity, fetal growth restriction or intrauterine fetal death can happen. Fetal growth restriction or intrauterine fetal death can be due to high degree of vascularity and shunting in the placenta. Marked dilatation of vessels – aneurysms may be seen on the fetal surface of the placenta [3].

HPE findings include haemorrhagic endovasculitis and villous chorioangiosis – hypercapillarizationie more than 10 terminal villi with more than 10 capillaries per villus [4].

Conclusion

PMD should be considered as differential diagnosis when USG shows a normal-appearing fetus with cystic appearing placenta. Association with Beckwith-Wiedemann syndrome, prematurity, IUGR should be looked for. Histopathological examination confirms the diagnosis [5].

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