Archives of Clinical Trials

Case Report

Radıologıcal Features of Placental Mesenchymal Dysplasıa

Ibrahim Çağrı Tural, Turgay Kara,

Department of Radiology, Necipfazıl State Hospital, Kahramanmaraş,Turkey

Correspondence

Turgay KARA

Department of Radiology, Necipfazıl State Hospital, Batı Çevreyolu Bulvarı 251/A 46050 Kahramanmaraş, Turkey
Tel: +905055197559
Fax: +903443001000
E-mail: trgykr@gmail.com
ORCID id: 0000-0001-8448-9066

Abstract

Introduction: *Placental mesenchymal dysplasia (PMD) is an uncommon disorder of the placenta, characterised by placentomegaly with diffuse hydropic stem villous, aneurysmally dilated vessels and lack of trophoblastic proliferation. its diagnosis can be confused with mole.Initial ultrasound and MRI are very important for radiological diagnosis. definitive diagnosis is made by postterm biopsy.*

Case: *A 33-year-old woman was admitted in her second pregnancy (first twin pregnancy) at 21 weeks' station in rutine control. There is a lesion that protrudes towards the uterine cavity, in the anterior part of the uterus corpus on ultrasound. MRI was performed same day for differential diagnosis. The mass was reporrted as placental mesenchymal dysplasia.*

Discussion: *PMD is a rare benign condition. The fetus with PMD can develop normally without severe maternal complications. It is important to distinguish PMD from a partial mole. Initial ultrasound and MRI are very important for radiological diagnosis. definitive diagnosis is made by postterm biopsy.*

- Received Date: 23 Oct 2024
- Accepted Date: 28 Oct 2024
- Publication Date: 01 Nov 2024

Keywords: Placental mesenchymal dysplasia, Ultrasound, Magnetic resonance imaging

Introduction

Placental mesenchymal dysplasia (PMD) was first described by Moscoso et al. in 1991. PMD is a rare (0.02-0.002%) placental lesion with cystic dilatation and vesicle formation in villi, placentomegaly and vascular abnormalities. Clinically, it resembles partial hydatidiform mole and can be misdiagnosed. However, the prognosis and distribution of these two conditions are different. PMD can progress to intrauterine growth retardation, stillbirth, Beckwith-Wiedemann syndrome and some chromosomal anomalies, and 40% can result in fetal death or neonatal death. However, it is possible for PMD to occur in genetically normal birth fetuses. [1]. Generalised vesicular lesions on ultrasonographic examination and gross appearance of placenta usually suggest a partial mole. Unlike partial moles, characterised by absent or malformed fetus, PMD can co-exist with a viable fetus. The common fetal complications reported in phenotypically normal fetuses associated with PMD are intrauterine growth restriction, intrauterine fetal demise or neonatal death [2].

Case

A 33-year-old woman was admitted in her second pregnancy (first twin pregnancy) at 21 weeks ' gestation in rutine control. The described intrauterine mass was reported together with the MRI sections and USG performed on the same day. There is a lesion that protrudes towards the uterine cavity, in the anterior part of the uterus corpus, with a diameter measured as 67x40x100 mm at its widest point on T2 sequences, with widespread septa, and an appearance compatible with a thin hypointense capsule around it (Figure 1). In the sonographic examination, millimetric, punctate, vascular structures were observed within the lesion (Figure 2). Additionally, vascular structures extending vertically from the uterus into the lesion were detected. Observation of millimetric vascular areas within the lesion in Doppler examination supports placental mesenchymal dysplasia (Figure 2).

Discussion

TPMD is a rare benign condition. 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 [3]. It is challenging to distinguish PMD from a complete mole with co-twin, which carries significant morbidity to the mother. The patient should be counseled on the potential associations of Beckwith-Wiedemann syndrome with prematurity, fetal growth restriction, or intrauterine fetal death. MRI has the advantage of very high image contrast with excellent contrast between the fluid and soft tissues. MRI findings of PMD have been described as an enlarged placenta with inhomogeneous signals and dilated placental vessels. As shown in our case, MRI with USG has the potential to be a useful tool for the differential diagnosis of PMD and should help inform appropriate management [4]..

Citation: Tural IC, Kara T. Radıologıcal Features of Placental Mesenchymal Dysplasıa. Arch Clin Trials. 2024;4(2):09

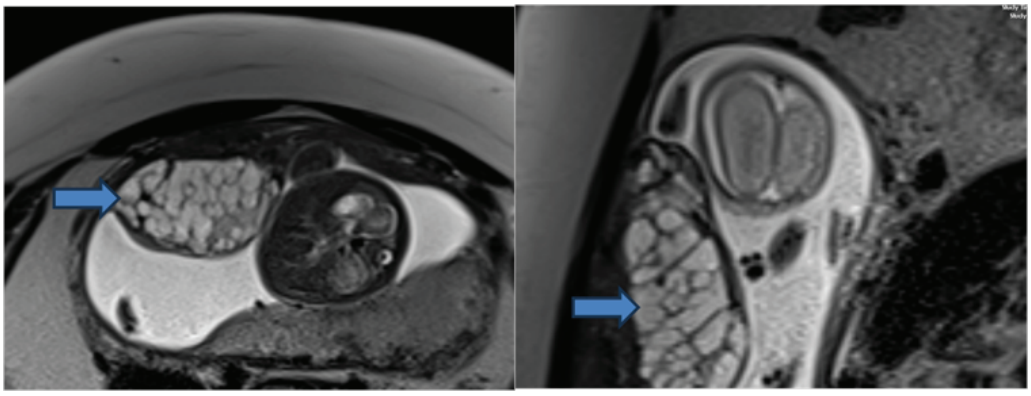

Figure 1: *MRI images of placental mesenchymal dysplasia*

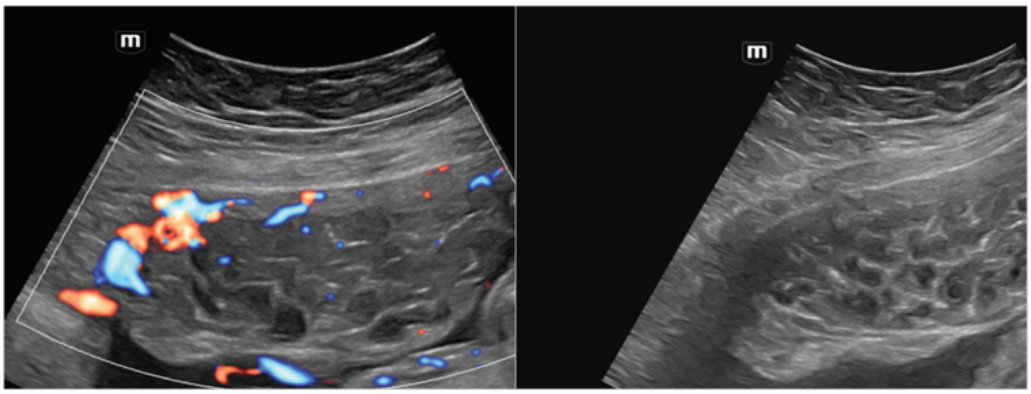

Figure 2: *Ultrasound images of placental mesenchymal displasia*

References

1. Truc P, Julie S, Carla S. Placental mesenchymal dysplasia is associated with high rates of intrauterine growth restriction and fetal demise: A report of 11 new cases and a review of the literature. Am J Clin Pathol. 2006;126:67-78.
2. Kaiser-Rogers KA, McFadden DE, Livasy CA, et al. Androgenetic/biparental mosaicism causes placental mesenchymal dysplasia. J Med Genet. 2006;43:187-192.
3. Matsui H, Iitsuka Y, Yamazawa K, Tanaka N, Mitsuhashi A, Seki K, Sekiya S. Placental mesenchymal dysplasia initially diagnosed as partial mole. Pathol Int. 2003;53(11):810-813.
4. Himoto Y, Kido A, Minamiguchi S, et al. Prenatal differential diagnosis of complete hydatidiform mole with a twin live fetus and placental mesenchymal dysplasia by magnetic resonance imaging. J Obstet Gynaecol Res. 2014;40:1894-1900.