

PLACENTAL MESENCHYMAL DYSPLASIA : A RARE CASE REPORT.

ABSTRACT: Placental mesenchymal dysplasia (PMD) is a rare placental vascular anomaly which is characterized by placentomegaly and areas of abnormal, enlarged, grape-like vesicles. This condition may also resemble like a partial molar pregnancy. It may be associated with fatal growth restriction, still birth and Beckwith–Wiedemann syndrome (BWS). It is also seen in phenotypically normal foetuses. We describe one case with typical microscopic placental lesions.

Keywords: Placenta, Placenta mesenchymal dysplasia, hydatidiform villi

INTRODUCTION

Placental mesenchymal dysplasia is a rare placental vascular anomaly, which is benign disorder of the placenta characterised by placentomegaly and areas of abnormal, enlarged grape like vesicles (1,2).

Placental mesenchymal dysplasia was described initially by Moscoso et al as stem villus hyperplasia with increased serum alpha fetoprotein and enlarged placenta with USG features suggesting partial hydatidiform mole, but it differs by absence of trophoblast in proliferation(3). The disorder is characterised by aneurysmal dilatation of vessels on fetal surface of placenta with dilated stem villi. The incidence is reported to be 0.02% of pregnancies (1,4,5).

It is associated with fetal growth restriction in majority of cases and approximately one quarter of reported cases with IUFD, Beckwith Wiedemann syndrome or may be associated with normal appearing foetus.

We reported one rare case of placental mesenchymal dysplasia in Sasoon Hospital.

CASE REPORT

A 23-year-old women, gravida (remaining past obstetric history was unavailable) presented to the hospital with bleeding per vaginum. On ultrasonography showing features of incomplete abortion and grape like vesicles were seen. Later on beta HCG was done and found to be 5000 IU/L. Dilatation and curettage was done and retained product of conceptions were sent for histopathological evaluation.

Gross Description:

Multiple soft tissue bits aggregating to 8 cc which were mainly strips of endometrium and blood clot. Chorionic villi were identified grossly but no grape like vesicles identified.

Microscopic description:

On microscopic evaluation, we found 2 types of chorionic villi which were of multiple size. First type of villi population were mostly normal for the gestational age and second type of villi was represented by enlarged stem villi with hydropic changes, central cistern formation. Some villi were avascular and few with thick walled vessels at the periphery and myxoid stroma.

DISCUSSION:

Placental mesenchymal dysplasia is a rare benign condition with unknown underlying cause. Some theories say it is a congenital malformation of mesoderm due to mesenchymal hyperplasia in stem villi (6). It is highly important to distinguish placental mesenchymal dysplasia from partial mole with an abnormal triploid foetus because this may result in pregnancy termination. While foetus from pregnancy with placental mesenchymal dysplasia may develop normally without severe maternal complication. It is found in approximately 0.02% of pregnancies.

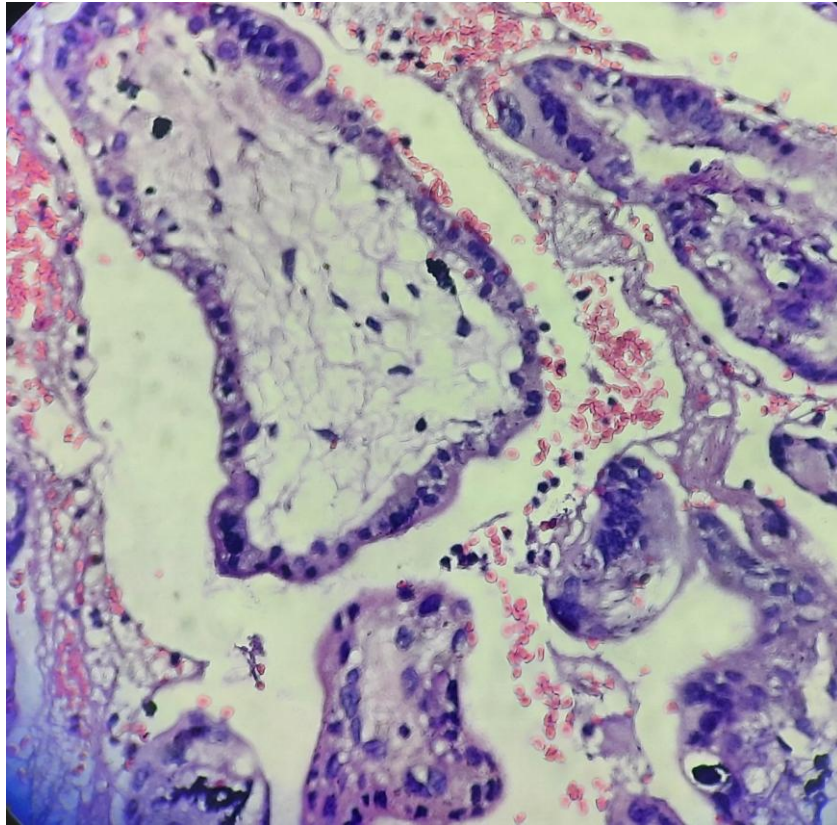
CONCLUSION:

In conclusion, we would like to emphasise on the importance of evaluating the placenta at every ultrasound examination because placental mesenchymal dysplasia has high rates of IUGR and IUFD. It is very important to identify it prenatally in an effort to reduce fetal morbidity and mortality.

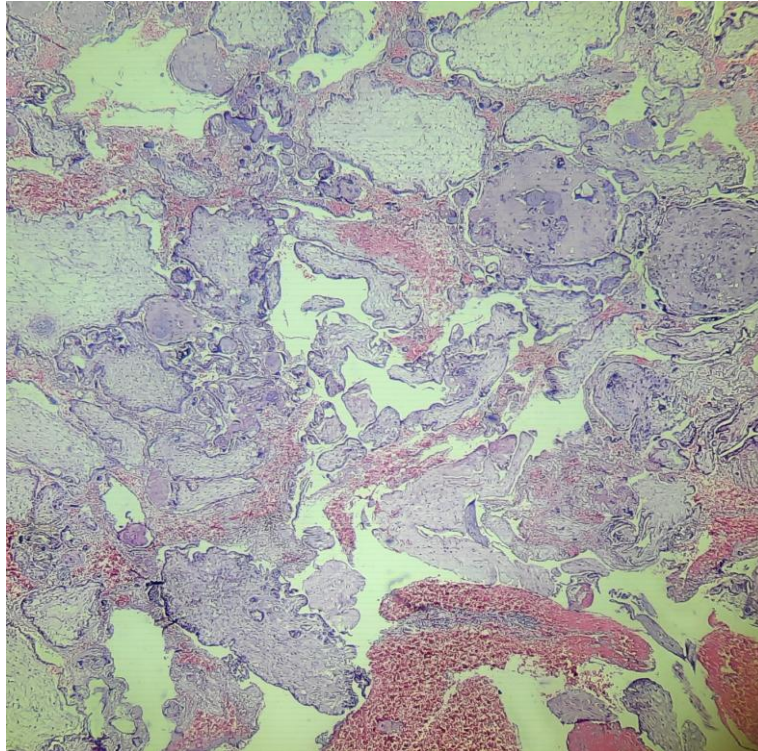
References:

1. T. Shigeki, H. Junko, S. Mari, N. Aya, Y. Dan, H.Ryoji,"A case of placental mesenchymal dysplasia",Case Reports in Obstetrics and Gynecology, vol.2013,Article ID 265159,3 pages, 2013.
2. Z. Parveen, J.E. Tongson-Ignacio, C.R.Fraser, J.L.Killeen and K.S.Thompson,"Placental mesenchymal dysplasia," Archives of Pathology and Laboratory Medicine, vol. 131, no.1, pp.131-137,2007.
3. G. Moscoso, E. Jauniaux, and J. Hustin, "Placental vascular anomaly with diffuse mesenchymal stem villus hyperplasia. A new clinico -pathological entity?" Pathology Research and Practice, vol.187, no. 2-3, pp. 324-328,1991.
4. U. A. Mayer I, A. B. West, H.K. Grossetta Nardini, J. A. Copel , and A.K. Sfakianaki, "Systematic review of sonography findings of placental mesenchymal dysplasia and subsequent pregnancy outcome," Ultrasound obstetrics and Gynecology, vol. 41, no. 4, pp.366-374,2012.
5. M. Arizawa and M. Nakayama," Suspected involvement of the X chromosome in placental mesenchymal dysplasia," Congenital anomalies, vol. 42, no. 4, pp.309-317,2002.
6. C.P. Chen, S.R. Chern, T.Y. Wang. Pregnancy with concomitant chorangioma and placental vascular malformation with mesenchymal hyperplasia. Hum Reprod , vol. 12, pp..2553- 2556, 1997.

LEGEND



- 1) Microphotograph of H & E section showed enlarged stem villi with hydronic changes.



- 2) Microphotograph of H & E section showing degenerated and hydronic villi.