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A Rare Case of Placental Mesenchymal Dysplasia

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ABSTRACT

Placental abnormality will directly affect the fetus in utero. Placental Mesenchymal Dysplasia is one such rare and clinically significant lesion with high rates of IUGR, IUFD, and neonatal death. Routine examination of the placenta is essential both sonographically in the antenatal period & following delivery. If any abnormality detected on macroscopic examination, placenta should be subjected for histopathological examination.

Keywords: *Placental mesenchymal dysplasia, Partial mole, chorioangioma of the placenta*

CLINICAL SUMMARY

A 25 year old woman was referred to Bapuji hospital in view of antepartum eclampsia. She was a case of G2P1L1 with 26 weeks of pregnancy with previous LSCS with low lying placenta & inevitable abortion. Her chief complaint was pain abdomen & bleeding per vagina with loss of fetal movements 2 hours prior to admission. In first pregnancy, she underwent LSCS for fetal distress 2years back. Underwent appendectomy 5years back. Clinical examination showed a moderately built young lady, with pallor & pulse rate of 86bpm of low volume BP=110/80 mmhg. CVS, RS were normal. There was pfanensteil & right para median scar present. Uterus 26 weeks size, acting & relaxing with absent fetal heart. Vaginal examination revealed fully effaced cervix with 3 cms dilatation & minimal bleeding through os. Bag of Membranes were bulging & the presenting part was above the brim

Her Investigations report was as follows,

Hb-13.3gm/dl, BT=2mins, CT=3mins
RBC 4.3 million/cumm, TC 13950cells/cumm, TC =36.8%, MCHC =36.1, platelet count=1.70lakhs /cmm
Blood group=o+ve.HIV, HBsAg, Syphilis =NR

This pregnancy had regular ANC's at private hospital & sonography at 19 weeks showed thick placenta of 7cms. Second opinion scan showed in-homogenous cystic areas suggestive of chorioangiosis of the placenta. Umbilical artery flow was normal. And was suggested follow up.
Third ultrasound, done 2 months later, showed single intra uterine pregnancy corresponds to 21 weeks 2 days with no cardiac activity. Placenta was posterior & low lying, extending up to internal os. Placental thickness was 84mm.Internal os was opened & was bulging. Impression was inevitable abortion.

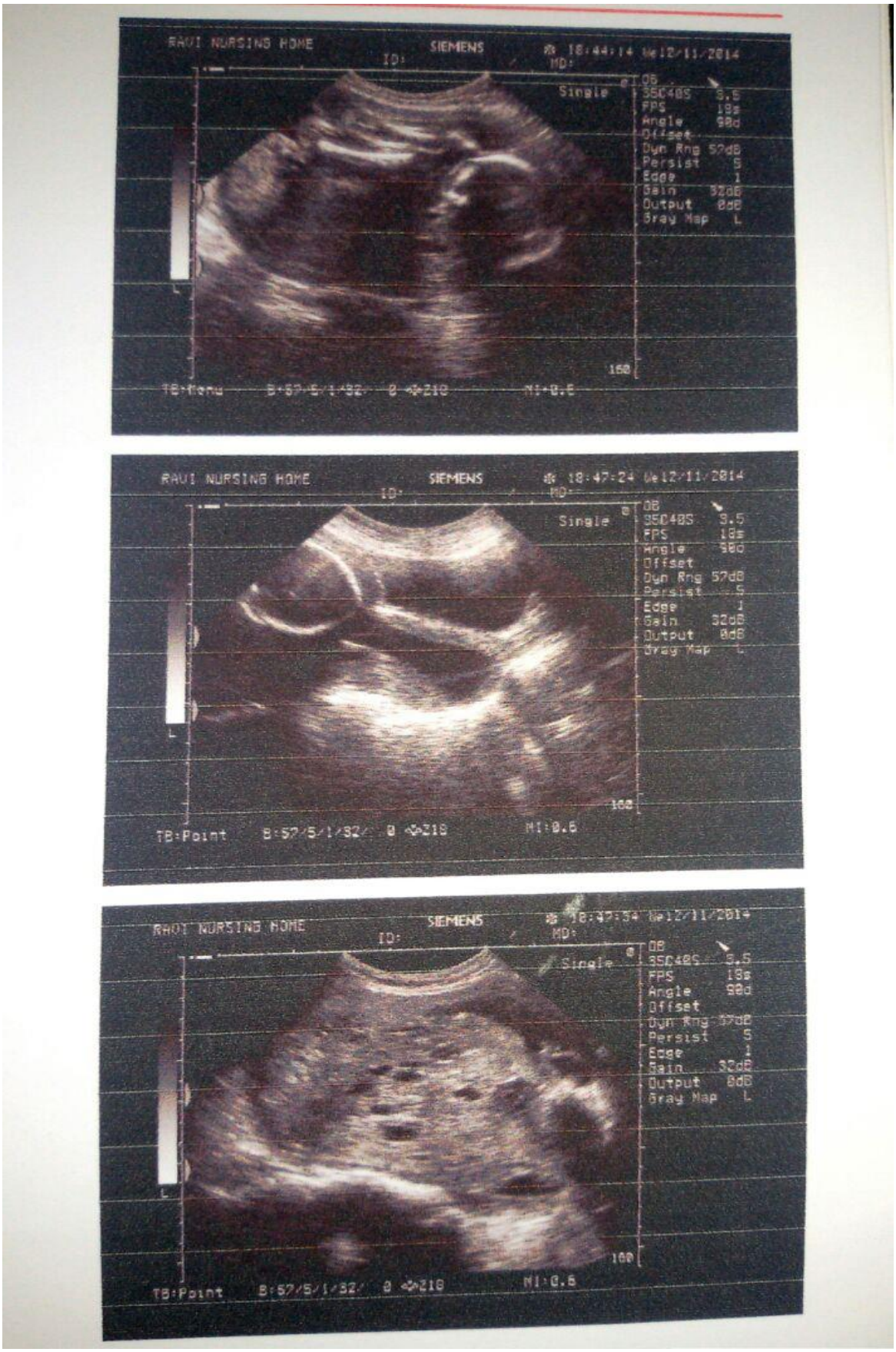
Abortion Notes:

Two hours after admission she aborted a single dead female aborts' with an unhealthy placenta Complete abortion of 400gms on 12.11.14
Placenta & membranes were expelled in Toto.

-Placenta measured 10x7x3cm, weighing 350gm with thickness of 3.5cm.
-Multiple cyst present on maternal surface measuring about 3x2cm which were 4-5 in number.
-Cotyledons were not well demarcated.

Histopathology showed

Features are suggestive of Placental mesenchymal dysplasia
DD: Partial hydatidiform mole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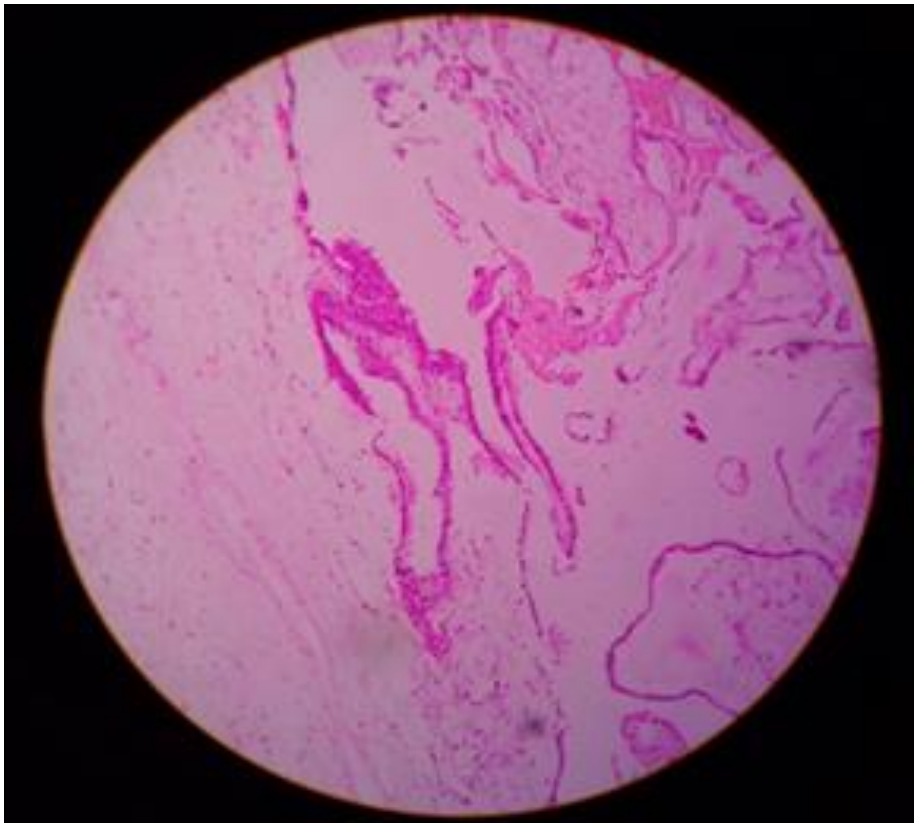

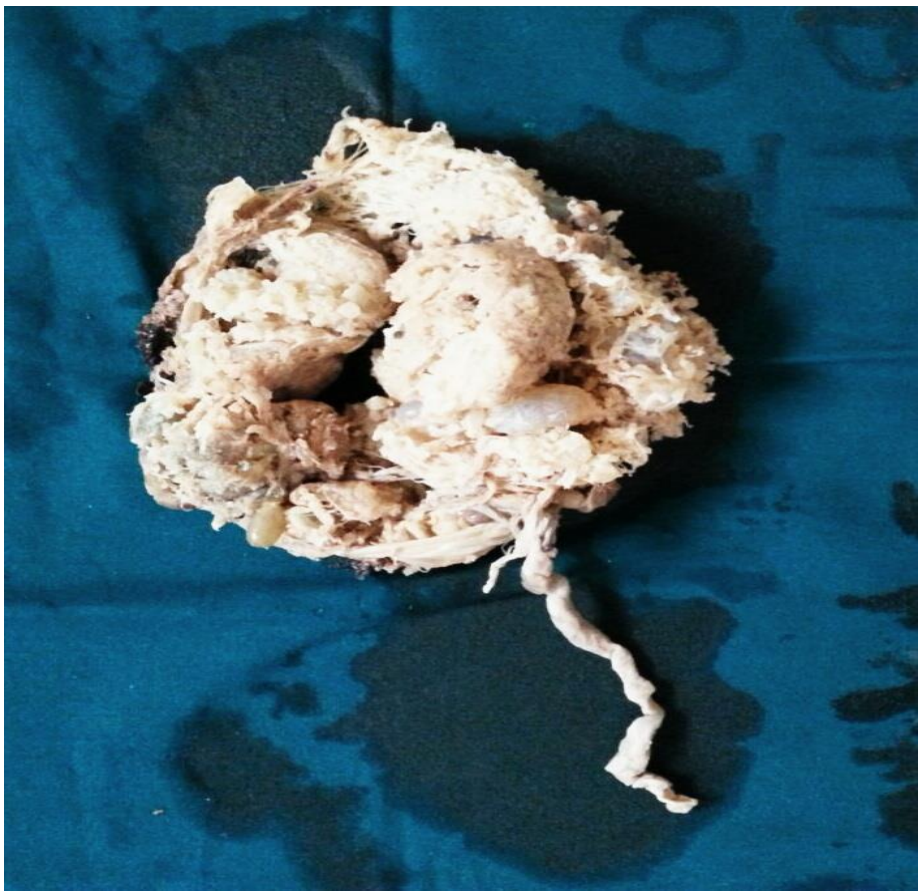

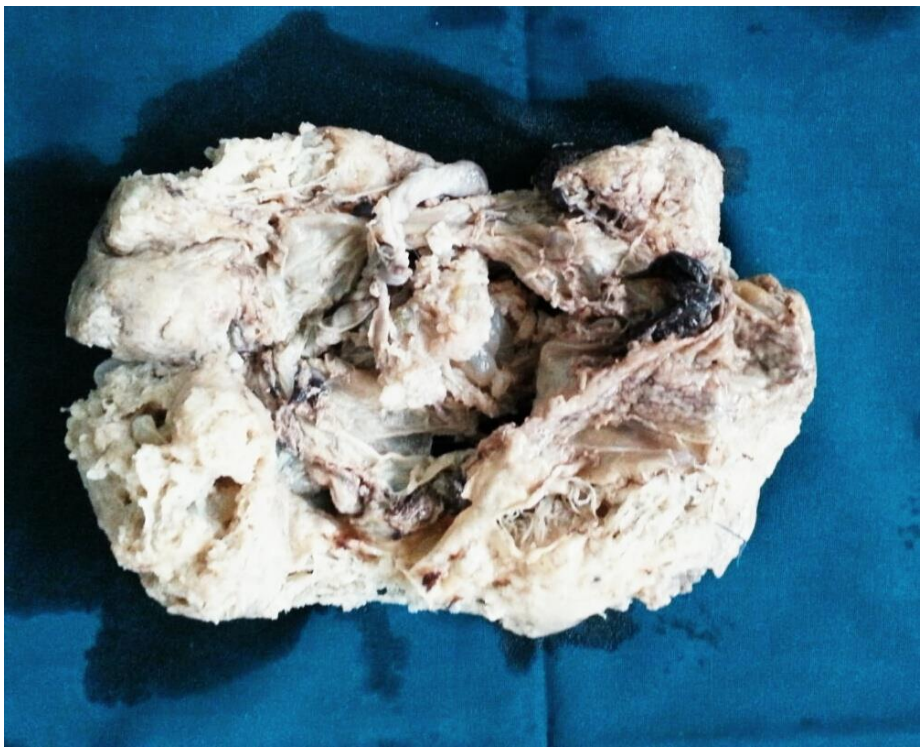

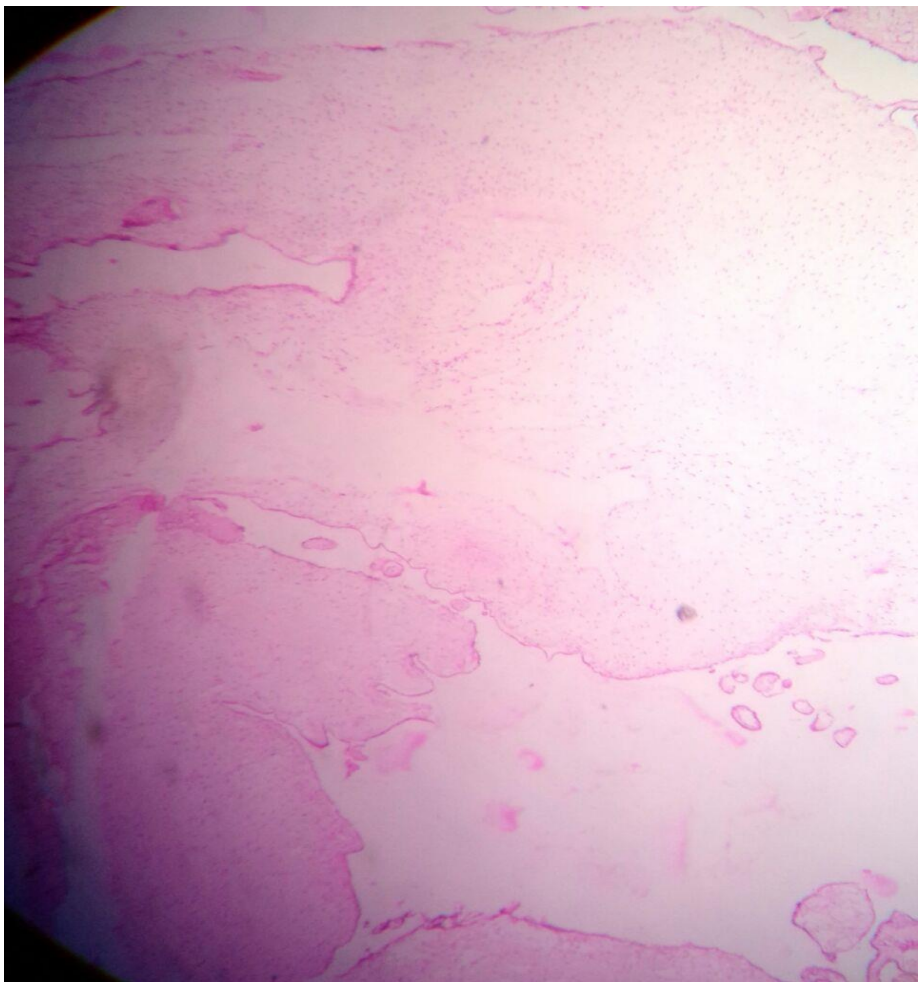

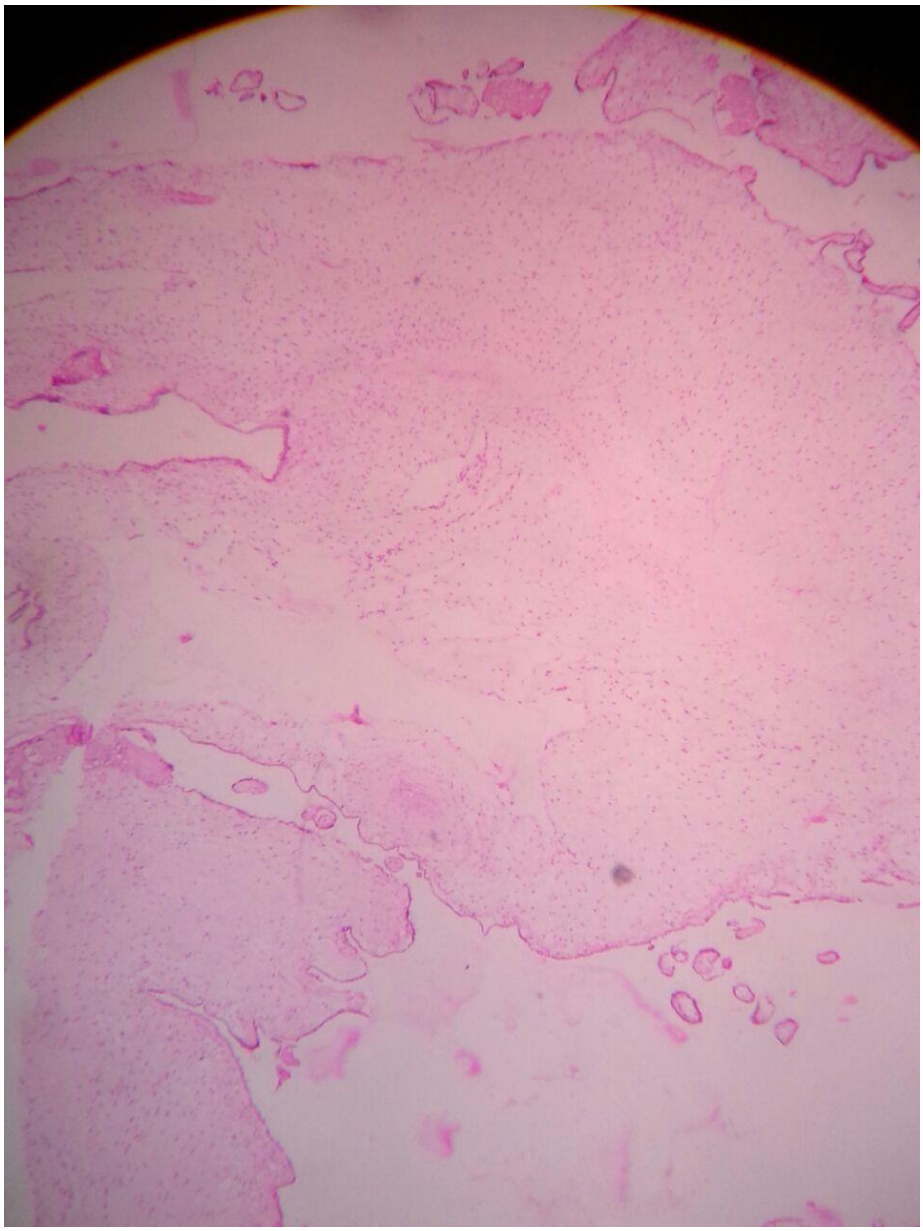

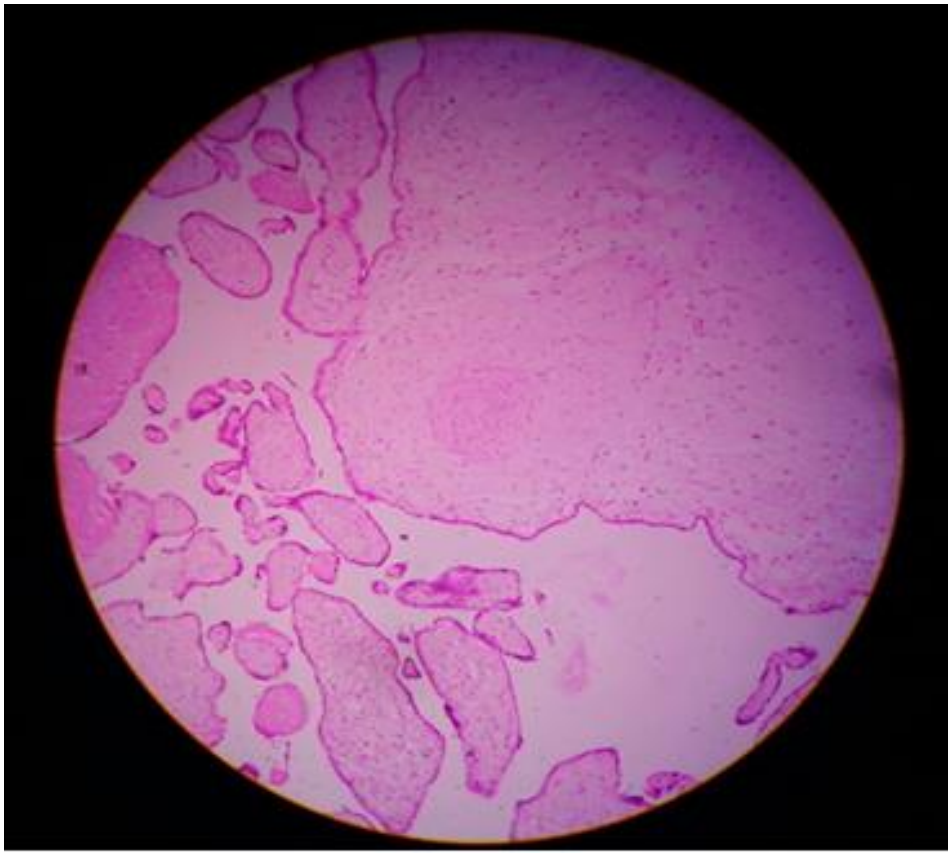

DISCUSSION

Placental mesenchymal dysplasia (PMD) is a rare condition of placentomegaly and abnormal chorionic villi often clinically mistakenly as partial hydatidiform mole.

First described in 1991 by Moscoso and colleagues, 1 placental mesenchymal dysplasia (PMD) is a rare lesion. Sonographically, PMD shows findings similar to those of partial hydatidiform mole, such as enlarged placentas with multicystic, anechoic regions (giving a moth-eaten appearance2-6), and widely distributed, large, edematous villi as seen under gross examination. PMD has distinct clinicopathologic features. Unlike molar pregnancies, characterized by absent or malformed fetuses, PMD usually features a normal fetus and the pregnancy often extends into the third trimester [(5)].

In cases of PMD, IUGR and IUFD may be explained by a potentially chronic hypoxia secondary to obstructive fetal vascular thrombosis and decreased maternal-fetal gas exchange due to an insufficient amount of normal chorionic villi and shunting of blood from the exchange surface in chorioangiomas and dysplastic villi.

Chorangioma is non trophoblastic placental tumor [1] Incidence is 1%, described by Clarke in 1798. It's a benign tumor like hemangiomas. [1]

DIFFERENTIAL DIAGNOSIS: includes Chorio angioma of the placenta Partial hydatidiform mole[3]

CONCLUSION

PMD is a rare and clinically significant lesion with high rates of IUGR, IUFD, and neonatal death. Female fetuses are affected disproportionately. Its cause and pathogenesis are unclear. However, promising results can be expected from molecular and genetic studies, relating this condition to genetic imprinting of chromosome 11p15, BWS, confined placental mosaicism, and other genetic mutations on chromosome X. Awareness of this entity—its sonographic similarity to partial hydatidiform mole, unique pathologic features, and high rate of IUFD—is important for prenatal counseling and monitoring.

Sonographic evaluation of the placenta has provided insight in understanding the normal & abnormal placenta & its consequences.[(5)]

The placenta, being fetal organ & any abnormalities can have serious antenatal implications. Hence careful evaluation of the placenta in addition to the fetus during routine anatomic ultrasound evaluations are recommended. [(1)]

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