A rare case of placental mesenchymal dysplasia with an associated fetal intra-abdominal cyst and ventriculomegaly.

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Background:

Placental mesenchymal dysplasia (PMD) is a rare placental condition. It is characterized by placentomegaly with dilatation and congestion of the chorionic plate vessels but without evidence of trophoblastic proliferation. It can resemble a molar pregnancy upon ultrasound/macroscopic examination of the placenta, and as such, requires placental histopathology to confirm the diagnosis. There have been approximately 51 cases of PMD previously described world-wide. An estimated 9% of cases result in a healthy live birth, with complications including pre-term birth, intra-uterine growth restriction and fetal demise.

Case:

This case describes an instance of PMD with an associated fetal intra-abdominal mass and ventriculomegaly. A 36-year-old low risk multiparous woman is noted to have a cystic appearing placental at 10 weeks gestation. Her NIPT was low risk. An early structural ultrasound at 13 weeks confirmed a partially dysplastic placenta and an amniocentesis at 15 weeks was unremarkable. At 21 weeks, specialist MFM review demonstrated an enlarging portion of placental dysplasia, an enlarging abdominal mass, dysplastic kidney, pericardial effusion and ventriculomegaly. PMD was suspected, with the main differential being a molar twin pregnancy. Clinical genetics team were involved with counselling and the couple elected to have a medical termination of pregnancy.

Discussion:

Autopsy results were suggestive of both placental and hepatic mesenchymal dysplasia. There was thought to be no future genetic implications for the couple. In summary, this case flags are rare case of placental mesenchymal disease with, unfortunately, a poor outcome. The constellation of associated fetal complications has not been previously described in the literature.

Ultrasound Images of the Placenta: