The Mid Yorkshire Hospitals NHS Trust

Placental Mesenchymal Dysplasia

Background

Placental mesenchymal dysplasia **(**PMD**)** is a rare, benign condition that is characterised by enlargement of the placenta with multiple bunches of grape-like vesicles that can resemble a molar pregnancy by ultrasound and gross pathologic examination (1).

Case Report

A 29 year old female (Gravida 3 Para 1) presented for a routine dating scan at 12 weeks 6 days gestation. A single live fetus was seen and also an enlarged cystic placenta (Figure 1). This was reported as a possible partial molar pregnancy with a live, coexisting fetus. Following the scan a referral was made to the Trust's Early Pregnancy Unit (EPU). The patient was seen the following day and a subsequent referral was made to the Tertiary Referral Centre.

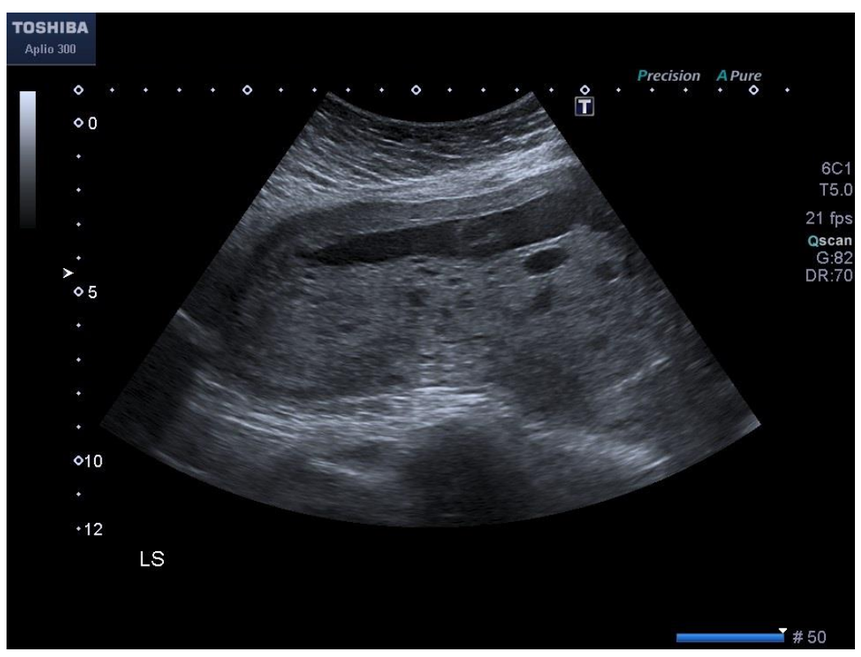


Figure 1 – LS and TS placenta at dating scan

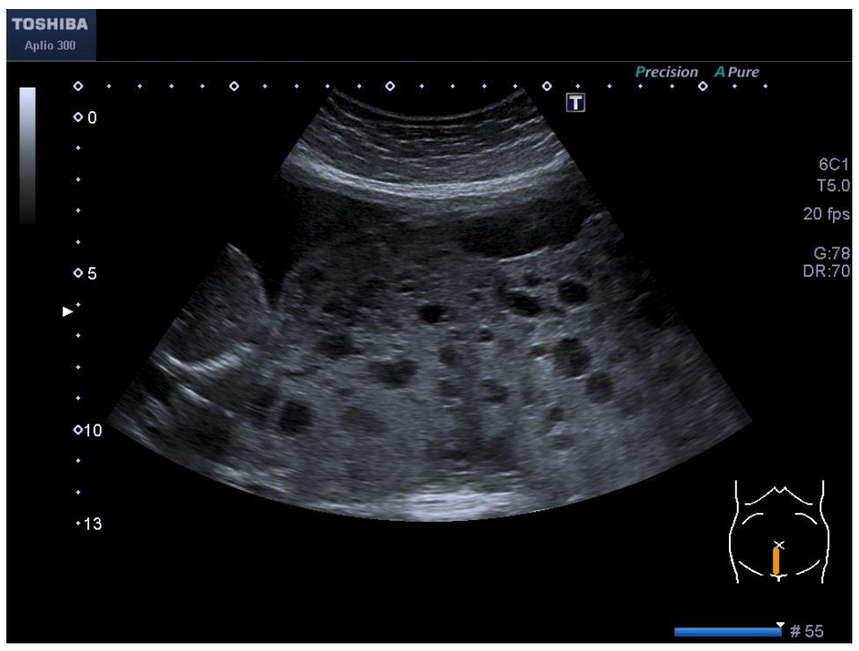


Figure 2 – LS placenta at 20 weeks

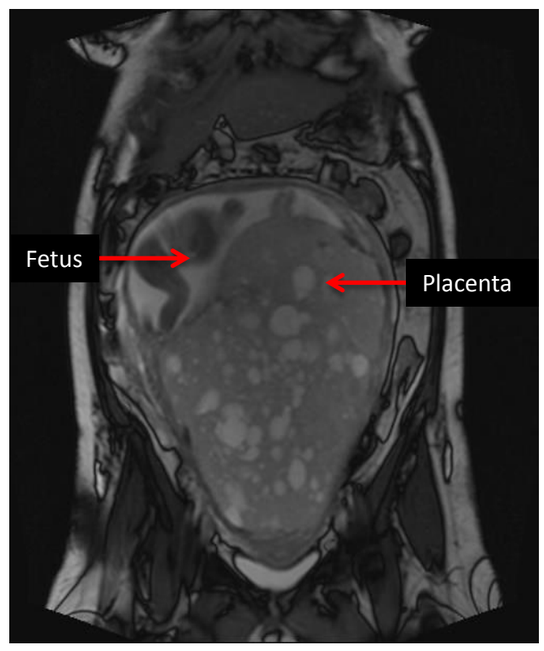
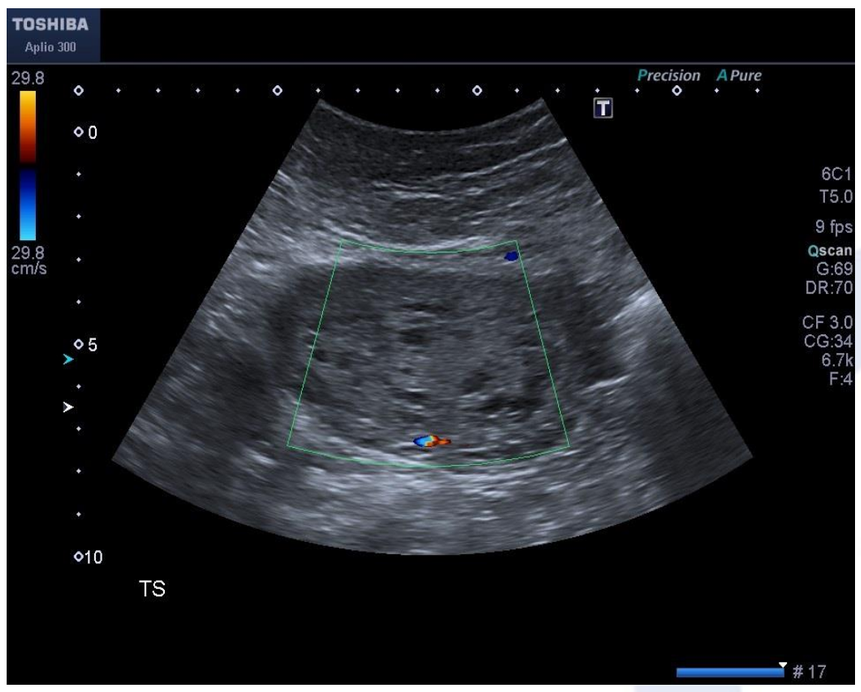


Figure 3 – MRI placenta at 22 weeks 5 days



The anomaly scan was performed at 20 weeks 1 day gestation and again the cystic placenta was noted (Figure 2). During the pregnancy there were multiple admittances for PV bleeding and reduced fetal movements, and subsequent antenatal care was taken over by the Tertiary Referral Centre.

An MRI scan was performed at 22 weeks 5 days gestation (Figure 3) and the appearances of the placenta were reported as 'molar change'.

At 32 weeks 5 days gestation a live male fetus was delivered by elective Caesarian section. He was admitted to the neonatal unit following delivery. The patient underwent a total hysterectomy immediately following delivery, due to massive post partum haemorrhage and was admitted to the Intensive Care Unit.

Histopathology of the placenta described a 'pathologically large (1613g) preterm placenta with mesenchymal dysplasia and secondary chronic fetal malperfusion'.

Mother and baby are now discharged and doing well.

Discussion

PMD is a rare disorder that is estimated to occur in 0.02% of pregnancies (2). ' It is probably under-diagnosed as it is an unfamiliar clinical entity and also mistaken for gestational trophoblastic disease because of similar sonographic findings of the two entities' (3). However 'Unlike molar pregnancies, PMD co-exists with a viable fetus' (4).

PMD increases the risks of adverse pregnancy outcome and is associated with preterm birth (52%), growth restriction (33%), genetic syndromes such as the Beckwith-Wiedemann syndrome (28%) and fetal death (13%) (5). In this case, although karyotype was normal, there was however preterm delivery and growth restriction.

While ultrasound is useful in the diagnosis of PMD it should be used alongside biochemical markers, such as serum hCG and AFP, karyotype and colour doppler. MRI has the advantage of very high image contrast with excellent contrast between the fluid and soft tissues. Moreover, it is much less dependent on the habitus of the woman and can produce high-quality images even in cases of oligohydramnios (6).

In conclusion, if a lady presents to the ultrasound department with an enlarged, cystic placenta and a coexisting fetus then PMD should be considered as well as a molar pregnancy.

References

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4. Havva Serap Toru1, Esra Çobankent Aytekİn1, et al. We can Diagnose it if we Consider it. Diagnostic Pitfall for Placenta: Placental Mesenchymal Dysplasia. Turkish Journal of Pathology. 2018; 34:1: 100-103
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