

Clinical and ultrasound characteristics of spontaneous ovarian hyperstimulation syndrome in precnancy.

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Objective

Spontaneous ovarian hyperstimulation syndrome (sOHSS) is a rare clinical condition with an aetiology that remains incompletely understood. It is characterised by bilaterally enlarged ovaries due to multiple theca-lutein and follicular cysts. Unlike iatrogenic ovarian hyperstimulation syndrome (OHSS), sOHSS is not related to pharmacological stimulation in assisted reproductive technology (ART), making diagnosis more challenging. On ultrasound, the morphological appearance of sOHSS may overlap with that of cystadenomas, borderline tumours and malignant ovarian tumours. Moreover, bilaterality may raise the suspicion of ovarian metastases from intestinal mucinous neoplasms. Accurate differential diagnosis is therefore essential, given the markedly different management strategies. The aim of this study was to describe the clinical and ultrasound characteristics of sOHSS.

Methods

Four pregnant women were consecutively enrolled. For each case, medical history, obstetric outcome and ultrasound parameters were collected. The morphology of the ovarian masses was described according to IOTA terminology by expert operators. The initial examiner’s diagnosis was recorded. Ultrasound images were subsequently reviewed to identify potential distinctive features.

Results

Mean age at diagnosis was 33 years (range 23–40). One patient had a twin pregnancy, two had singleton pregnancies, and one was undergoing treatment for a partial hydatidiform mole. Mean β -hCG level at ultrasound examination was 194,196 mU/mL (range 496–651,000).

On ultrasound, the ovaries were enlarged, with a mean maximal diameter >100 mm (range 44–170 mm). All patients had bilateral multilocular lesions with >10 locules and anechoic content. The crescent sign was not observed bilaterally in any case. Colour Doppler showed predominantly peripheral vascularity with flow mainly along the septa. The initial diagnostic impression in all cases was sOHSS. Image review identified a characteristic “bunch-of-grapes” pattern, reflecting the regularity of locules and the overall morphology. Management was conservative in all cases, with spontaneous resolution during postpartum follow-up, in the second trimester, or following β -hCG reduction after uterine evacuation for partial mole.

Conclusion

During pregnancy, large bilateral ovarian masses with a multilocular morphology (>10 locules), peripheral/septal vascularity and absence of the crescent sign should prompt consideration of sOHSS. The “bunch-of-grapes” pattern warrants prospective validation in larger multicentre cohorts. Accurate ultrasound diagnosis supports conservative management and may avoid unnecessary surgery during pregnancy, which could adversely affect obstetric outcomes.

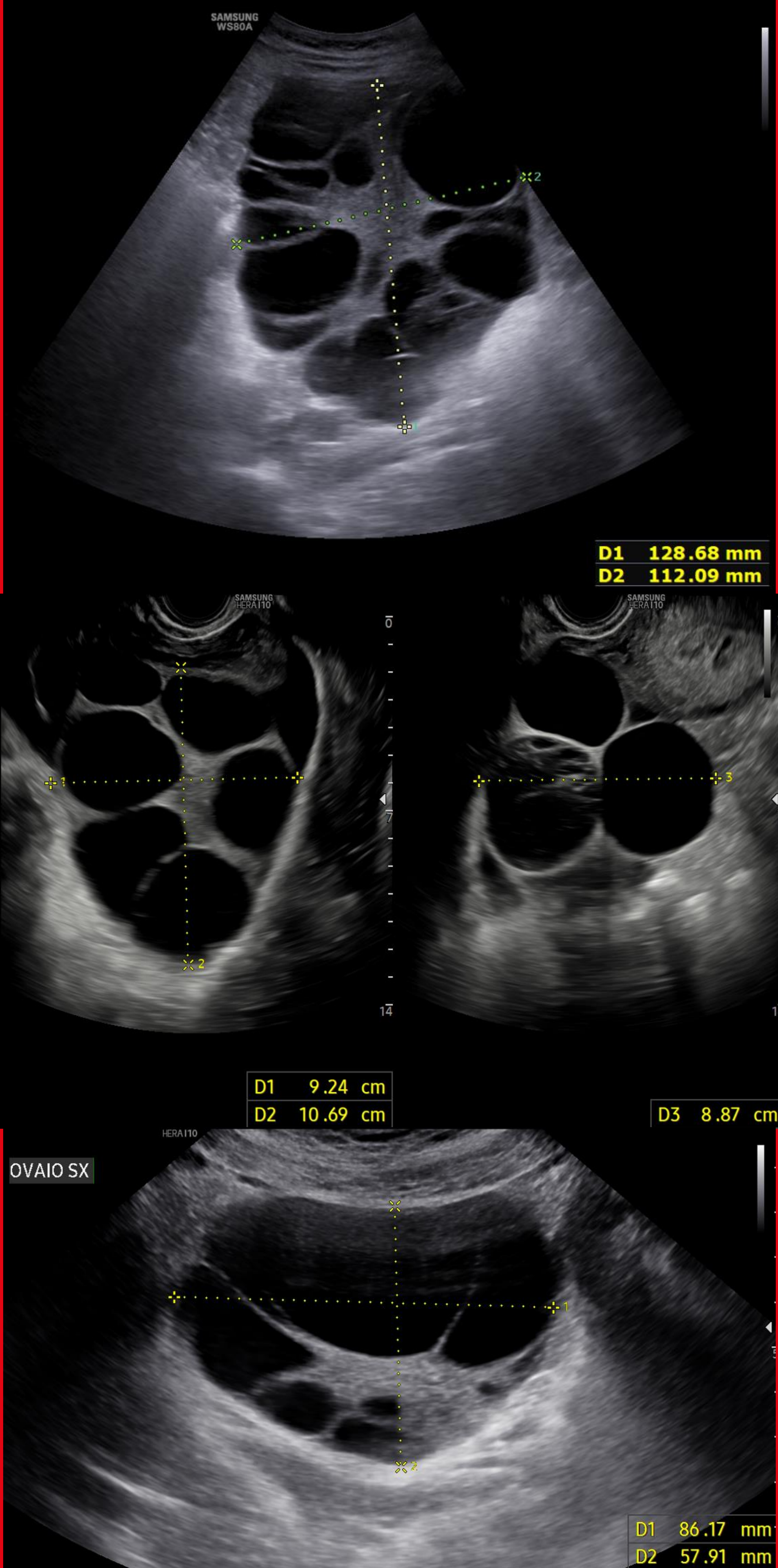


Fig 1. Ultrasonographic appearance of 3the ovaries in three different cases of sOHSS