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Case Report

Acute ascites and abdominal pain from ovarian hyperstimulation syndrome (OHSS)

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ABSTRACT

A healthy 30 year old female G1P1 presented to the ED with a chief complaint of abdominal pain, shortness of breath and bloating 72 hours after an egg retrieval out of state. She states she had two injections of an unknown hormone therapy and that the retrieval was uncomplicated. On arrival, heart rate is is 130-140s and her blood pressure is soft (99/76). Her abdomen is distended and non-focally tender but not peritoneal. Point-of-care FAST exam was immediately performed showing free fluid (Fig. 1) and enlarged, cystic appearing ovaries (Fig. 2).

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1. Case

A healthy 30 year old female G1P1 presented to the ED with a chief complaint of abdominal pain, shortness of breath and bloating 72 h after an egg retrieval out of state. She states she had two injections of an unknown hormone therapy and that the retrieval was uncomplicated. On arrival, heart rate is 130–140 s and her blood pressure is soft (99/76). Her abdomen is distended and non-focally tender but not peritoneal. Point-of-care FAST exam was immediately performed showing free fluid (Fig. 1) and enlarged, cystic appearing ovaries (Fig. 2).

2. Diagnosis

2.1. Ovarian hyperstimulation syndrome

Formal US confirmed the diagnosis and the patient was admitted to the obstetrics and gynecology service for moderate-to-severe OHSS. She was placed on leuprolide and letrozole. She had low urine output (5–25 mL/h) despite aggressive IV fluid resuscitation and several doses of albumin and she was subsequently moved to the medical ICU on day 2 of admission. A paracentesis was performed removing 3 L and an indwelling drain was placed for daily paracentesis. She was placed on doxycycline due to persistent leukocytosis. After approximately 4 days in ICU she was downgraded to the floor and she was discharged 9 days after admission in good condition.

Ovarian hyperstimulation syndrome (OHSS) is a rare but serious complication which occurs when the ovaries are overstimulated and enlarged due to fertility treatment [1]. The stimulation leads to increased capillary leak, third spacing fluid shift from the intravascular space to the abdominal cavity. The incidence of this complication is rare and depends on the clinical context (i.e. IVF vs egg harvesting vs other), but is approximately 1%. OHSS can be life threatening due to complications including venous or arterial thromboembolism, stroke or loss of limb perfusion [2]. Signs and symptoms of OHSS include

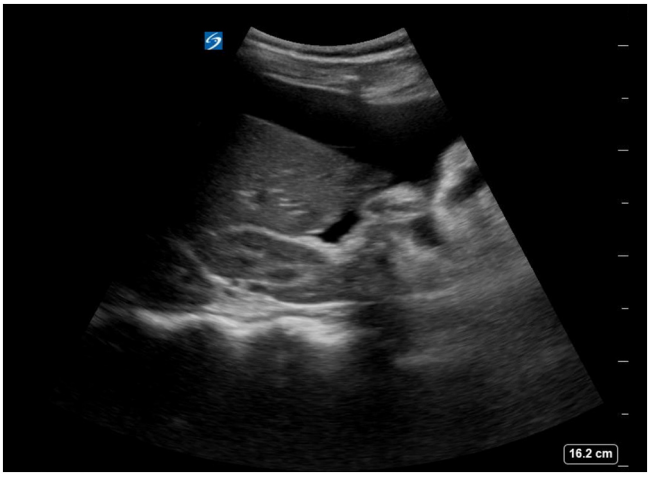

Fig. 1. Grossly positive FAST of the right upper quadrant with significant fluid in morrisons pouch.

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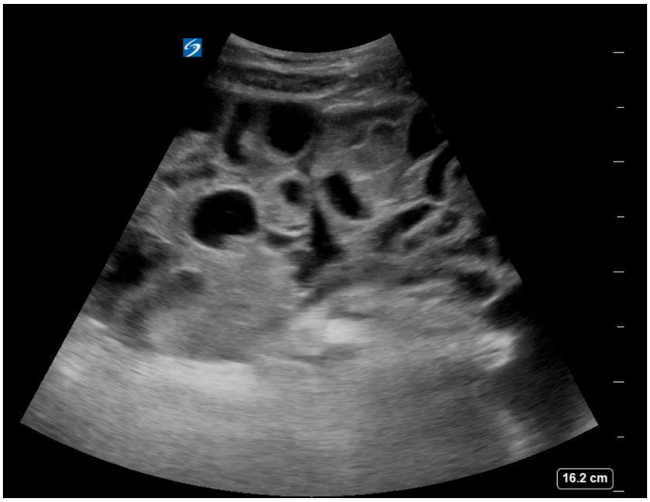

Fig. 2. Enlarged, heterogenous ovaries with mixed solid and cystic lesions.

abdominal distension, pain, ascites. The diagnosis is primarily clinical based on history and exam as well as ultrasound. OHSS should be managed in consultation with an OBGYN. Mild cases can typically be managed as an outpatient but may progress to a more serious presentation and require close monitoring. Moderate and severe cases require fluid restriction, daily weights, labs and ultrasound as well as therapeutic paracentesis and thromboembolism prophylaxis. Occasionally patients will require close monitoring in the intensive care unit as in the case of this patient.

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