

Critical Ovarian Hyperstimulation Syndrome (OHSS) presenting with isolated unilateral massive pleural effusion: Case Study and Report

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Introduction

Ovarian stimulation can result in the accumulation of fluid in the peritoneal space. Because of this, patients with OHSS typically present with abdominal distention and discomfort.¹ In severe cases of OHSS, patients can present with pleural effusion proposedly due to the pressure gradient between the peritoneal and pleural space.²

Objectives

This case represents a rare potentially life-threatening iatrogenic complication of ovulation induction.

Case Study

Case: 39-year-old female presents eight days post egg extraction with HCG trigger and six days post embryo transfer with right sided chest pain and dyspnoea. Electrocardiogram (ECG) showed sinus tachycardia with evidence of right heart strain. CT Pulmonary Angiogram (CTPA) was ordered to exclude pulmonary embolism. CTPA showed large right pleural effusion compressing the right lung with compression of the thoracic trachea highly concerning for impending airway compromise. Abdominal ultrasound revealed mild ascites. Blood tests showed mild hyponatremia with normal haematocrit, renal function, serum osmolality and albumin.

Results: Intercostal catheter drained thirteen litres of fluid over the course of thirteen-day admission. Patient reported mild exertional dyspnoea and continuing pregnancy at two week follow up.

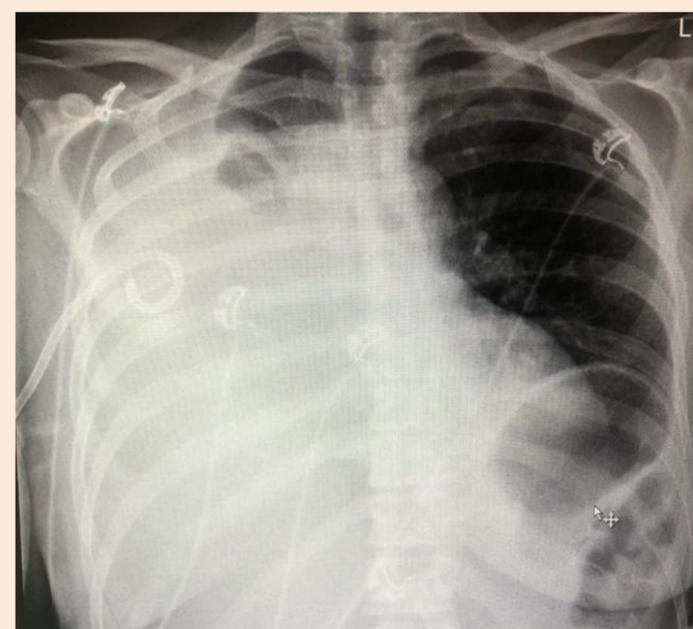


Figure 1: Chest x-ray demonstrating right-sided massive pleural effusion with chest drain in situ

Discussion & Conclusion

Isolated massive pleural effusion as a presentation for OHSS poses a diagnostic challenge due to its non-classical presentation. Cases of isolated massive pleural effusion in the context of OHSS are rare – a reminder to consider this differential in a patient who has recently undergone ovarian stimulation, even in the absence of typical extra ovarian manifestations.

References

1. Royal College of Obstetricians and Gynecologists . *Green-Top Guideline No. 5*. London: Royal College of Obstetricians and Gynecologists; 2006. The Management of Ovarian Hyperstimulation Syndrome.
2. Vidal A, Wachter C, Kohl Schwartz A, Dhakal C. A rare presentation of isolated right-sided pleural effusion in the context of ovarian hyperstimulation syndrome: A case report. *Case Reports in Women's Health*. 2021. 32.

