

## Dyspnea in a Young Patient Undergoing In vitro Fertilization Treatment

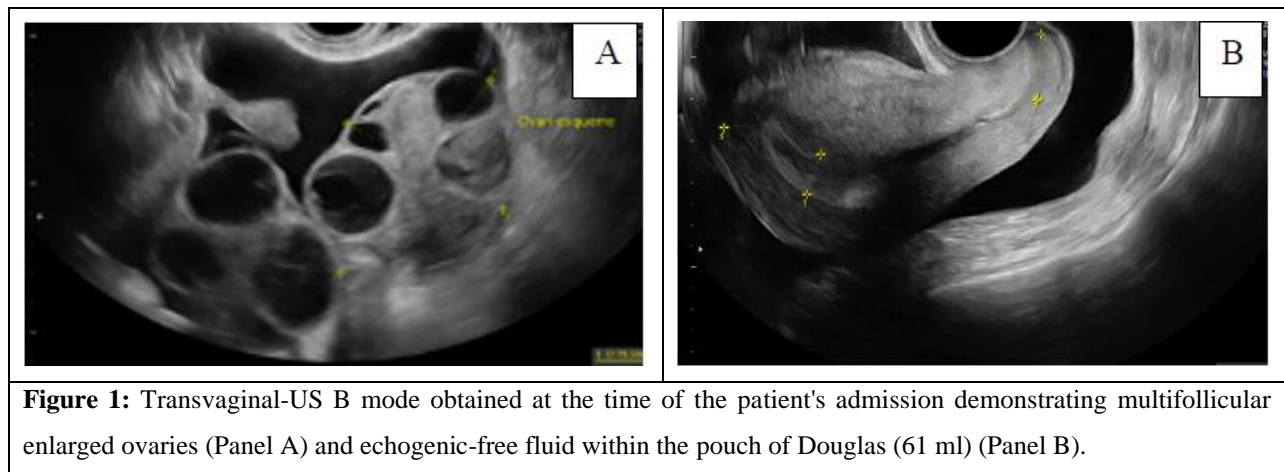
Miriam Manzanares Garcia-Faria<sup>1\*</sup>, Iñaki Marina Clopes<sup>2</sup> and Magdalena Muelas Fernandez<sup>2</sup>

<sup>1</sup>Family physician, Costa Ponent Teaching Unit, Metropolitan South, Institut Català de la Salut, Viladecans (Barcelona), Spain

<sup>2</sup>Internal Medicine Department, Hospital of Viladecans, Institut Català de la Salut, Viladecans (Barcelona), Spain

\*Corresponding author: Miriam Manzanares Garcia-Faria, Family physician, Costa Ponent Teaching Unit, Metropolitan South, Institut Català de la Salut, Viladecans (Barcelona), Spain. E-mail: [miriamgf82@gmail.com](mailto:miriamgf82@gmail.com)

Received: September 12, 2022; Accepted: September 19, 2022; Published: October 04, 2022



### Clinical Image

#### Main section

A 32-year-old woman was admitted to our internal medicine ward for dyspnea and pain in right hemithorax. Patient was on folic acid 5 mg/day and progesterone 600 mg/day due to invitro-fertilization treatment. Physical examination revealed heart rate was 110 bpm, Oxygen saturation was 93% and right basal hypophonesis on her chest was noted. The dyspnea-onset started 5 days before eventually progressing at rest. Laboratory findings indicated increased hematocrit and leukocytosis with evidence of hypersegmented neutrophils (Hematocrit 48%, WBC  $19.5 \times 10^9/L$ -Neutrophils 84.5%). X-rays revealed moderate pleural effusion in right hemithorax and CT-scan showed no signs of pulmonary embolism but confirmed bilateral pleural effusion with a right predominance and free peri-splenic fluid. In addition, a transvaginal-US was performed (Figure 1).

## Discussion

Our patient was diagnosed with a severe form of ovarian hyperstimulation syndrome-OHSS. Condition characterized by ovarian cystic enlargement and fluid shift from the intravascular to the third space [1] due to increased capillary permeability. Its occurrence depends on the exogenous administration of human chorionic gonadotropin-hCG and is the most serious complication of ovulation induction. The syndrome can be classified by severity level as mild, moderate and severe. Pleural fluid, ascites, abnormal kidney function and alterations in coagulation [2] can be seen in severe forms.

Supportive care was dispensed including the prompt administration of oxygen supply in addition to serum-albumin, Ceftriaxone and prophylaxis against thromboembolism. However, since the patient's clinical condition was not improving, 4 days after she underwent culdocentesis which drained 1300 ml and thoracocentesis with the extraction of 2800 ml of transudate fluid. These resulted in relief of the patient's symptomatology. Fertility treatments are increasingly common and this disorder, with a reported overall incidence between 6%-11% [2], should be considered in the differential diagnosis of women undergoing ovarian stimulation. The severity of the condition worsens during pregnancy due to the own production of hCG [3], as it occurred in our patient since  $\beta$ -hCG test became positive at a later time.

**Keywords:** Ovarian hyperstimulation syndrome; Assisted reproductive technology

## REFERENCES

1. Saha PK, Goel P, Tandon R. Ovarian Hyperstimulation Syndrome (OHSS) Presented as Massive Hydrothorax. *J Clin Diagn Res.* 2013; 7: 2996-2997.
2. Wu D, Shi H, Yu Y, et al. Comparison of the Effectiveness of Various Medicines in the Prevention of Ovarian Hyperstimulation Syndrome: A Network Meta-Analysis of Randomized Controlled Trials. *Front Endocrinol (Lausanne).* 2022; 13: 808517.
3. Timmons D, Montrief T, Koyfman A, et al. Ovarian Hyperstimulation Syndrome: A Review for Emergency Clinicians. *Am J Emerg Med.* 2019; 37: 1577-1584.