

Isolated Unilateral Symptomatic Pleural Effusion-An Atypical Presentation of Ovarian Hyper Stimulation Syndrome-A Case Report

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Abstract

An uncommon presentation of Ovarian Hyper stimulation Syndrome is Isolated pleural Effusion. Reporting a case of late onset of ovarian hyper stimulation with Unilateral Pleural Effusion and Respiratory distress as a sole manifestation after Embryo transfer.

Keywords: OHSS (Ovarian Hyper Stimulation Syndrome) ET (Embryo Transfer)

Introduction

OHSS is one of the most grave and iatrogenic complication of controlled ovarian stimulation, clinical manifestation varying from mild to severe, it accounts for 33% of stimulated cycle. Pulmonary manifestation account for 7.2% of severe OHSS [1]. But the Isolated finding of pleural effusion without ascitis as the main presenting symptom of OHSS is not frequently reported and its pathogenesis is also unknown or remains a mystery. Awareness about the disease can lead to early pickup of such cases and better management. The article reports an unusual case of isolated pleural effusion after controlled ovarian stimulation after IVF and review of literature.

Case History

A 28yr old female married for 8years, no issue bilateral block, on laparoscopy there was mild endometriosis no pill. So was taken for IVF. Patient had no past history of COPD, Asthma, T.B, no family history of chronic illness. Pt was down regulated with oral pills and lupride, D2 FSH-3.77, LH-2.93, E2-29.9. She was stimulated with 150 IU of recombinant for 5 days and then HMG 150 IU for another 5 days. At the time of HCG injection E2- 4440, and 8 oocyte were retrieved. Pt was comfortable and discharged. D3 transfer was done three grade A embryo was transferred, pt discharged home comfortably.

Seven days post ET patient had a complain of right side chest tightness, shortness of breath, especially while lying on right side (orthopnea) dry cough. On examination her abdomen was soft; no evidence of ascitis, pulse rate was 102/min, blood pressure 100/70 mm of Hg, O2 saturation was 92%, diminished air entry on right side. Her WBC count was 15,000 cells/UI, her renal function test and Liver function test was normal. Chest X-ray showed moderate to severe pleural

effusion right side. Ultrasound showed no evidence of ascitis, slightly enlarged ovary. Patient was managed conservatively with a multidisciplinary approach and intensive care monitoring. She was placed in propped-up position along with antibiotic, antacid, nebulisation and chest physiotherapy looking over the amount of fluid and patient distress pleural tapping was done and 600ml of straw colour fluid was aspirated, send for cytology and culture which was sterile and was exudates. Due to distress retapping was done after 2 days, patient recovered in another 2 days, unfortunately her beta HCG did not come to be positive, but she was discharged in good condition.

Discussion

OHSS usually result from stimulation of ovaries by Gonadotropin with the initial onset following the administration of exogenous HCG.

In my case - patient was young with low BMI presented 6 days after transfer (late onset) and was managed conservatively.

Literature reveals

First case of isolated pleural effusion associated with severe OHSS was described in 1975, there had been few other published case report, approx. 30 cases of isolated pleural effusion as a sole manifestation has been reported [2-19]. Pathogenesis of isolated pleural effusion is still not clear.

1. The pathogenesis of this syndrome involves an increased permeability of ovarian capillaries and of mesothelial vessels triggered by release of vasoactive substances by the ovaries under HCG stimulation.
2. One hypothesis is that it is because of a mild increase of intrabdominal pressure which leads to drive ascitic fluid through weak diaphragmatic anatomical defect, these defects are more commonly seen in female and more on right side of

diaphragm explaining the predominance of right side of pleural effusion. Pleural fluid Interleukin 6 level are comparable to value reported in ascitis, which is 1000 times higher than normal serum, also supporting a passive movement of ascitis fluid from abdomen into pleural space [20].

Risk factor after review of literature normally shows young female with low BMI, PCOS, Increase number of oocytes and ongoing pregnancy.

Conclusion

It demonstrates that pleural effusion may be the only manifestation of OHSS and implies a careful management of patients with pulmonary complaints after treatment with exogenous gonadotropin, so the awareness about this isolated extra-ovarian problem is very important for early and better management.

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