Case Report: A case of Clomiphene citrate induced ovarian hyperstimulation

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Introduction
Ovarian hyperstimulation is an iatrogenic complication of ovulation induction which can seriously affect patients health in 0.1-2%, developing severe form of the syndrome.

Case History
19 year female married since 6 Months, Nulligravida, Hindu by religion educated till 12th std, housewife, belonging to lower middle socio economic. Patient was apparently alright 2 months back, was taken by her mother in law, to a gynecologist for inability to conceive, no investigations available, was subjected to one cycle of Clomiphene citrate 100mg and presented with mentioned complaints.

She had severe pain in lower abdomen since morning, which, was acute in onset, severe, non radiating, no aggravating or relieving factors. She also had 2-3 episodes of vomiting, non-bilious. Had no history of using any contraception. Had not been treated for irregular menses earlier.

Menstrual history: Attained menarche at 15 years of age LMP-- 25/4/17, LLMP—9/1/17
Prmc—4-5days/2-3months/ average flow had history off irregular menses since menarche
Pamc—4-5 days/2-3months/average flow Day 21 of menses today.

Obstetrics history--- Nulligravida, Not using any Contraception.
Past History -No history of diabetes, tuberculosis, bronchial asthma, thyroid disorder, heart disease
No history of similar complaints in past No history of any major illness or surgery in the past
Family History- No history of diabetes, hypertension, tuberculosis, thyroid disorder.
Personal history- Vegetarian by diet, Normal appetite, Normal sleep, Normal bowel and bladder habits.
Dietary history: Calorie intake-- 1900kcal

On Examination: General built : Fair, Well nourished, Ht :148cm Wt:53kg, Bmi:35kgm2
Blood pressure: 110/70mmhg, Pallor: present, Good oral hygiene, Tongue - Moist, Thyroid gland: not palpable.
On breast examination: normal nipple areola complex, no secretions.
Cardiovascular examination: heart sounds normal, no murmur respiratory system: air entry bilaterally equal, no adventitious sounds heard.
On per abdominal examination: Soft, Non-tender No guarding, no rigidity no ascites
No abdominal mass palpable per speculum examination: Cervix/Vagina-- Healthy
Per vaginal examination: Uterus normal size, Mid position. Fullness present in right fornix. No bilateral fornicial tenderness. Her urine pregnancy test was negative. Her USG was suggestive of bilateral ovaries showing multiple luteal cysts. No previous scan available. Complete blood count: Within normal limits. Hct—36.4%, TLC-12000/cumm. CA-125 <4. LFT—within normal limits. KFT—Na-136meq/l t, K—4.4meq/l t.

Urine routine—within normal limits. Coagulation profile—Inr:1:01. Serial Ultrasonography
Was managed conservatively: Strict input output charting, Abdominal girth charting, Weight charting, Intravenous fluids, Injectable Zofer 4mg im sos, Injectable Buscopan sos, Serial ultrasonography scans.

Day 1 of admission:
Usg s/o Right ovary: 10cm.
Left ovary: 10cm.

Day 3 of admission:
Usg s/o Right ovary: 9cm
Left ovary: 8cm
No e/o torsion
No e/o free fluid in abdomen n pelvis.

Day 8 of admission: Similar findings as previous scan.

Discussion
Anovulation is the major cause of female reproductive dysfunction and can be identified in approximately 18%-25% of couples presenting with infertility. Clomiphene is non-steroidal Triphenylethylene derivative which is commonly used for ovulation induction. Side effects include abnormal vaginal bleeding, breast discomfort, headache, nausea, vomiting. It is considered safe and is rarely associated with OHSS.


Management is essentially supportive until the condition resolves spontaneously. Involves a multidisciplinary approach and should follow agreed local protocols. Mild and moderate OHHS can be managed on an outpatient basis. Analgesia using paracetamol or codeine is appropriate. Non-steroidal anti inflammatory drugs should not be used. Strenuous exercise and sexual intercourse should be avoided for fear of torsion of hyperstimulated ovaries. Antiemetic drugs should be those appropriate for possibility of early pregnancy such Prochlorperazine, Metachlopramide and Cyclizine. Daily monitoring for worsening of symptoms, abdominal girth, weight, fluid intake & output should be done. In case of severe OHHS,
intensive care setting may be required. Careful monitoring of fluid balance is needed. Intravenous (IV) fluids should be used if need arises. A colloid such as albumin is given if, despite intensive IV fluid input, a woman remains fluid-depleted. Electrolytes require careful monitoring as hyponatremia is common. Diuretics should be avoided. Aspiration of ascites or pleural effusion can relieve symptoms. Intense monitoring is needed so that complications such as acute kidney injury, thromboembolism, pericardial effusion and ARDS are diagnosed early and managed appropriately.

**References**