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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 12thstd ,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/lt K—4.4meq/lt

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:

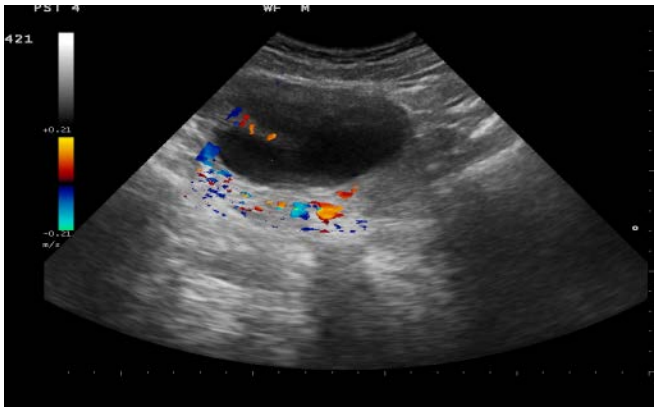
Usg s/o Right ovary : 9cm

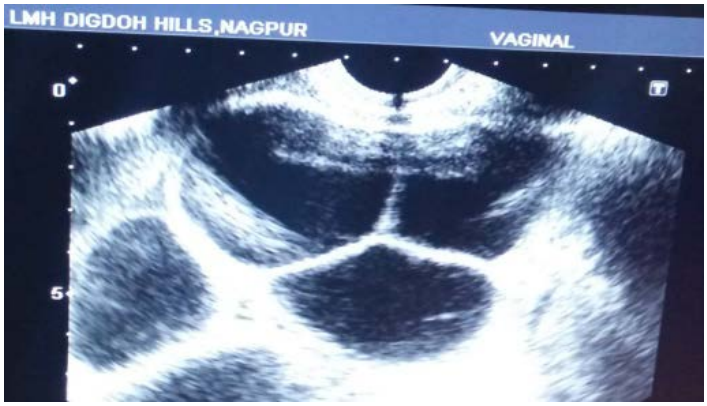
Left ovary : 8 cm

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.

Diagnosis is usually straightforward : History of ovarian stimulation either by gonadotropins or anti-estrogens. Symptoms of abdominal distention, pain, nausea and vomiting. Complications of ovarian cyst (torsion, hemorrhage). Pelvic infection. Abdominal hemorrhage. Ectopic pregnancy. Appendicitis .

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, Metachlopromide 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.

MILD	MODERATE	SEVERE	CRITICAL
Bloating	Vomiting	Massive ascites	Tense ascites
	Abdominal pain	Hydrothorax	Hypoxemia
Nausea	U/S evidence of ascites	Hct>45%	Pericardial effusion
		WBC>15000/cumm,Oliguria	Hct >55%
Abdominal distention	Hct ->41%		WBC>25000
	WBC >10,000/-	Creat-1 to 1.5mg/dl	Anuria
Ovaries<8cm	Ovaries 8 to 12 cm.	Creatinine clearance->=50ml/min	Creat>1.5mg/dl
			Creat clearance<50ml/min
		Hepatic dysfunction	Renal failure
		Ovaries >12cm.	Thromboembolic phenomena
			ARDS Ovaries variably enlarged

HIGH RISK	LOW RISK
Young (35 Years)	Older (>35 years)
Polycystic appearing ovaries	Hypogonadotropic
Asthenic habitus	Heavy built
High serum Estradiol	Low serum Estradiol
Multiple stimulated follicles	Poor response to gonadotropins
Necklace sign pregnancy	Few antral follicles
HCG luteal supplementation	Elevated baseline FSH
GnRH agonist down regulatory protocol.	Progesterone or no luteal supplementation
	Clomiphene citrate/or Hmg protocol

Conclusion

In this case clomiphene was started without complete evaluation of infertility, anovulation was not confirmed, patient was not advised about follicular monitoring and directly 100 mg instead of minimum 50 mg was started. This shows potentially serious effect of clomiphene if used inappropriately.

Thus to conclude though rare, the risk of ovarian hyperstimulation syndrome should not be underestimated with clomiphene .and proper evaluation of Case should be done to minimize unnecessary ovulation induction and minimum dose of clomiphene should be used if needed with proper follicular monitoring.

References

1. Mitchell SY, Fletcher HM, Williams E. Ovarian hyperstimulation syndrome associated with clomiphene citrate. West Indian Med J. 2001;50(3):227-9.
2. Whelan JG, Vlahos NF. The ovarian hyperstimulation syndrome. Fertil Steril. 2000;73:883–96.
3. Nasseri S, Ledger WL. Clomiphene citrate in the twenty-first century. Hum Fertil (Camb). 2001;4(3):145-51.
4. Roge P, Emy R. Ovarian hyperstimulation syndrome in medically assisted reproduction. Rev Fr Gynecol Obstet. 1994;89(10):495-501.
5. Budev MM, Arroliga AC, Falcone T. Ovarian hyperstimulation syndrome. Crit Care Med. 2005;33(10 Suppl):S301-6.
6. Mathur R, Evbuomwan I, Jenkins J. Prevention and management of ovarian hyperstimulation syndrome. Current Obstet Gynaecol. 2005;15:132–8.
7. Alina OA, Luca A, Bors A. Principles of diagnosis and management in the ovarian hyperstimulation syndrome. Curr Health Sci J. 2013;39:187-92.
8. Klaus Fiedler, Diego Ezcurra. Predicting and preventing of Ovarian hyperstimulation syndrome(OHHS):the need for individualized not standardized treatment(management). Reprod Biol Endocrinol. 2012;10:32.