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Ovarian Torsion after Ovarian Hyperstimulation Syndrome

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Abstract

We here report two case of ovarian torsion We checked the presence of all possible factors that could explain the onset of the syndrome. Ovarian hyperstimulation syndrome (OHSS) is almost exclusively associated with ovulation induction with gonadotropins[3] OHSS continues to be a serious complication of assisted reproductive therapy (ART), with no universally agreed upon best method of prevention If OHSS is diagnosed, the etiology should be determined in order to focus the treatment and avoid future complications.

INTRODUCTION

Ovarian hyperstimulation syndrome (OHSS) is rather frequent (1–5%) in women submitted to superovulation with gonadotropins for in vitro fertilization (IVF). Multiple pregnancy, gestational trophoblastic disease, primary hypothyroidism, thyroid-stimulating hormone/ gonadotropin-secreting adenomas, and mutations of the FSHR gene may trigger spontaneous OHSS.[1,2]

PURPOSE

The aim of the study was to investigate the incidence, progress, management, and outcome of adnexal torsion after controlled ovarian hyperstimulation in embryo transfer cycles.

PRESENTATION OF CASE

A 25-year-old woman (Gravida 0 Para 0) with first infertility of 2-year duration with bilateral polycystic ovaries and timed intercourse came for further treatment to our clinic. Her body mass index was 20. She was planned for controlled ovarian stimulation for IVF and was given short protocol. Stimulation with urinary FSH was started on day 2 of menstrual cycle, and starting Recagon dose was 225 IU s/c for 8 days. Moreover, antagonist was started on day 7 of menstrual cycle. Decaptopile 0/1 subcutaneous was given for oocyte maturation. On day 12, there were 15 dominant follicles in the left and right ovary. Oocyte retrieval was done on day 14 of cycle. She came with the sudden onset of severe right- and left-sided
abdominal pain with increasing severity in the next 2 h.

On the day of pick up, rotation occurred.

She had no medical or surgical history. On examination,
she had tachycardia +108/min, blood pressure –110/80,
and respiratory rate –18/min. She had moderate abdominal
distension, and severe right- and left-sided guarding.

Abdominal ultrasound one suggested enlarged bilateral
ovary - right 14 × 10 cm and left 8 × 9 cm with multiple
cysts, fluid in paracolic gutter, and Morison's pouch. She
was diagnosed with severe OHSS. Doppler study was not
conclusive about torsion. Pain decreased with injection
tramadol. With the further episode of severe abdominal pain
after 2 h of admission, decision was made for emergency
laparoscopy.

Ultrasonography showed that bipolar ovaries of normal
diammonotic and large ovaries with thick blood flow in the
left and right ovary, in the abdominal cavity indicative of

hemoperitoneum, were shown. Emergency laparoscopy was
done and bilateral ovarian torsion with retained vascularity
was noted. Biochemistry and thyroid function were normal.
Laparoscopy for suspicion of OHSS complicated by
ovarian torsion confirmed bilateral ovarian enlargement and
hemoperitoneum.[5] The left adnexa was twisted around the
stem and an ischemic adenosectomy was performed and
two liters of blood was sprayed. Later, anatomopathological
examination confirmed ovarian ischemia.[5,7]
The pathogenesis of OHSS involves hyperstimulation of
FSHR by FSH or other glycoproteins with similar structures.
Recently, mutations of the FSHR gene leading to an increased
sensitivity of the receptor to normal levels of hormones have
been also described, although a standard genetic test has yet
to be developed. Several circumstances may increase the
levels or biological activity of these glycoproteins.[6,3]

CASE REPORT

Woman 28years old (gravida 0 para 0). with first infertility
of 1years duration with top normal ovaries and timed intercourse came for further treatment to our clinic.
Her body mass index was 19/8.
She was planned for controlled ovarian stimulation for IVF
and was given short protocol.
Stimulation with urinary FSH was started on day 3 of the
menstrual cycle, and starting recagon dose was 225 IU s/c
for 8 days.
And antagonist was started on day 7 of menstrual cycle.
Decapeptyle 0/1 subcutaneous was given for oocyte maturation.
On day 10 there were 20-30 dominant follicles in left&right
ovary.
Oocyte retrieval was done on day 12 of cycle.
She came with sudden onset of severe right-left sided abdominal pain with increasing severity in next 2 hours.
On the day of pick up rotation occurred.
The left ovary torso, which had been rotating, turned open.

CONCLUSION

OHSS can be associated with life-threatening complications
that require early diagnosis for successful management. The
etiology should be determined in order to focus the treatment
and avoid future complications.

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