



Ovarian Hyperstimulation Syndrome (OHSS)

What is ovarian hyperstimulation syndrome?

Injectable gonadotropins which are used to stimulate the growth of eggs can sometimes result in an excessive response called ovarian hyperstimulation syndrome (OHSS). This is rarely seen with other medicines such as clomiphene citrate or gonadotropin-releasing hormone used for the same purpose.

OHSS can cause follicles to grow in large numbers and increase the level of estradiol. This results in fluid accumulation and swelling in the abdomen with nausea and bloating. Severe OHSS can cause abdominal pain, shortness of breath, blood clots, vomiting, dehydration and rarely death.

How severe do the symptoms of OHSS get?

Based on severity, the symptoms of OHSS are classified as mild, moderate and severe. Mild symptoms include bloating, nausea and weight gain from fluid collection. This is experienced by 1 out of 3 women on controlled ovarian stimulation to enhance in vitro fertilization. With moderate OHSS these symptoms are more severe. In severe OHSS, women experience severe vomiting, shortness of breath and blood clots in the legs.

OHSS causes enlargement of the ovaries and can be classified based on the size of the ovaries. A transvaginal or abdominal ultrasound can measure ovary size and the amount of fluid accumulation.

How do you treat OHSS?

The symptoms of OHSS can be dangerous if not carefully monitored and managed. Regular ultrasound tests and blood tests will need to be performed though hospitalization is rarely necessary. You are recommended to increase your electrolyte-rich fluid intake (>120 ounces) and reduce activity. Nausea may be treated with medication. Fluid in the abdomen may be drained out using a needle or catheter (paracentesis). Sometimes more than one drainage is needed. Fluid accumulation may be reduced by a medicine called cabergoline.

In severe cases, hospitalization may be necessary with administration of IV fluids, anti-nausea medication, fluid removal from the abdomen, supportive therapy as needed and close monitoring.

What are the complications associated with severe OHSS?

The complications associated with severe OHSS include dehydration, clot formation and increased pressure from the fluid in your abdomen. Clots can be potentially life-threatening if they travel to the lungs and major organs.

Worsening of OHSS can be identified by recognizing changes in symptoms or laboratory studies. With careful monitoring, appropriate treatment can be administered in a timely manner.

How long does it take for OHSS to resolve?

OHSS usually develops a few days after ovulation. If you do not become pregnant, symptoms may last for 2 weeks. If you do become pregnant, symptoms may persist for another 2-3 weeks and then subside gradually, not affecting the pregnancy.

Can anything be done to reduce the risk of getting OHSS?

Your doctor can suggest several strategies to reduce the risk of OHSS. These include reducing the dose of ovarian stimulating medications, using a medicine called leuprolide rather than human chorionic gonadotropin (hCG) to prepare the eggs for release and using cabergoline to reduce fluid accumulation.

If you become pregnant, the symptoms of OHSS can be severe. Those who develop OHSS can delay pregnancy by freezing eggs/embryos until a later date. This allows OHSS to resolve quickly without complications.

Women with a high risk of OHSS can be given increased intravenous fluids when their eggs are retrieved to prevent worsening of symptoms.

Summary

- Ovulation induction or ovarian stimulation for in vitro fertilization commonly causes OHSS
- See your doctor as soon as you notice symptoms
- Severe symptoms include protracted nausea and vomiting, inability to keep down fluids, difficulty breathing, abdominal swelling, weight gain, reduced urination. Other symptoms include weakness and lower extremity swelling.

- OHSS can be managed by drinking electrolyte-rich fluids, reducing your activity, drainage of abdominal fluid, medicine for nausea and pain, monitoring yourself and having regular check-ups.
- Severe OHSS may require hospitalization for careful monitoring and treatment.
- To lower the risk of getting OHSS your doctor may suggest lowering the dose of gonadotropins, using leuprolide instead of hCG to stimulate ovulation and cabergoline to minimize fluid accumulation.