



Ovarian Hyperstimulation Syndrome (OHSS)

**Tena koutou katoa, Kia orana, Talofa lava, Malo e lelei, Fakaa-
lofa lahi atu, Taloha Ni, Ni Sa Bula Vinaka,**

Greetings and Welcome to National Women's

Auckland District Health Board
National Women's Health

What is ovarian hyperstimulation syndrome?

Many women undergo treatment to stimulate their ovaries as part of their fertility treatment. Ovarian hyperstimulation syndrome (OHSS) is a complication of ovarian follicle stimulation. This can be either by tablets or injections. OHSS can be mild, moderate or severe. Some women will only experience mild symptoms, while others may develop moderate to severe symptoms, which will require assessment in hospital. OHSS is taken very seriously, but it is very rare for it to become a life-threatening event.

How is OHSS caused?

While the exact cause is unknown, OHSS is an over-reaction when the ovaries are stimulated and exposed to certain hormones. These are the lutenizing hormone present in the 'trigger' injection and the human chorionic gonadotrophin (HCG) which is produced by the woman's body when she becomes pregnant. OHSS causes a "fluid shift" from the circulation to other areas of the body such as abdomen and lungs, causing the signs and symptoms of OHSS.

Who is at risk of getting OHSS?

- Women with polycystic ovarian syndrome (PCOS).
- Women who previously suffered OHSS.
- Women with an Estradiol level that is greater than 7,500 pmol/l (this is one of the hormones measured in women having fertility treatment).
- Women who have a large number of small follicles at the time of an egg pick up procedure during IVF treatment.
- Women under 30 years.
- Thin women.
- Women with a multiple pregnancy.

What are the signs and symptoms of OHSS?

OHSS can vary from a mild case with discomfort to a severe development of serious problems. It is important to contact the doctor (or clinic nurse) who has prescribed your fertility treatment, straight away if you develop any of the following symptoms.

Symptoms of a mild case of OHSS include:

- an uncomfortable or bloated abdomen caused by the enlarged ovaries.
- nausea / vomiting and diarrhoea.
- headaches, nervousness, dizziness.
- temporary visual disturbances.

Moderate OHSS can involve any of the above symptoms as well as any of the following:

- Shortness of breath due to fluid in the lungs.
- 'Flu' like symptoms (feeling hot and unwell) due to changes in your hormone levels.
- Reduced urine output (passing less urine).
- Gradual weight increase of 1kg a day.
- Swelling of the abdomen, upper thighs and pubic area.

Severe OHSS can have all of the above signs & symptoms as well as:

- Difficulty in breathing.
- Dehydration (dry mouth, skin and tongue, thirsty).
- Pain around the ribs or abdomen.

What happens if I have OHSS?

The doctors and nurses are usually able to monitor women with mild OHSS on an outpatient basis. However women with moderate or severe symptoms require hospitalization for careful monitoring and treatment.

If your symptoms are serious enough to require admission to hospital, you will need to have blood tests to check your kidney, liver and clotting functions as these can be affected by OHSS.

You will also need to have an ultrasound scan to assess the size of your ovaries and the amount of fluid in your abdomen and chest.

You will be weighed and your abdomen measured. Fluid intake and output (how much you drink and how much urine you pass) will also be monitored. These measures are done to assess whether your OHSS condition is improving or getting worse.

The management of your care will depend on the severity of the symptoms but your care could involve the following treatment:

Intravenous (IV) Fluids

An intravenous (IV) line is inserted into a vein in your arm or hand to give fluid to help keep you hydrated. The 'fluid shift' caused by OHSS means that although you have excess fluid in your abdomen, this fluid has shifted from your circulation. As a result, the fluid in your circulation will decrease causing dehydration and making you feel thirsty. Sometimes intravenous albumin (concentrated protein solution) is given to accelerate the recovery phase. There may be a restriction placed on overall fluid intake, usually no more than 2-3 litres of total fluid intake over a 24 hour period.

If your period starts, you will likely begin to feel better. Pregnancy may prolong or exaggerate the side effects. It may take up to

10 weeks for the symptoms to totally resolve if you are pregnant.

Medication

Medication to control nausea and vomiting can be given either as a tablet to take by mouth, or by injection into the IV line in your arm/hand. Medication also can be given for discomfort or pain caused by the symptoms of OHSS. Anti-inflammatory pain relief such as voltaren or brufen should be avoided as these can cause bleeding. Medication that is given in the hospital will be safe for your unborn child should you become pregnant.

Prevention of clots

You will be given a pair of anti-thrombo-embolism stockings (called 'TED stockings') to help prevent blood clots developing in your legs or lungs. This is because the disturbance in liver function can affect your blood clotting mechanism putting you at a higher risk of developing blood clots.

You may also be given an anti-clotting injection into the skin of your abdomen once a day to reduce the risk of clotting.

You will be also asked to exercise by walking in the ward as well as moving your legs and feet while in bed. This will help to promote blood circulation. You should also avoid using pillows under the calf muscles in your legs.

Oxygen

Oxygen may be necessary for women feeling short of breath as a result of the build up of fluid within the abdomen or in the lungs.

Passing Urine

If you have difficulty in passing urine, or you are passing significantly reduced amount of urine, the catheter may need to be placed into your bladder. This will enable our staff to accurately measure the amount of urine extracted during the day.

Paracentesis (fluid drainage)

In rare cases where there is a large amount of fluid in the abdomen causing significant discomfort, a procedure called 'paracentesis' can be performed. This involves a cannula (a tube) being inserted into the abdominal wall to drain off the excess fluid.

A paracentesis will only be considered in severe OHSS because this cannot stop the fluid being collected into the abdominal wall and as with any other procedure there are risks involved. Should a paracentesis be recommended the doctor would discuss the procedure with you first. Paracentesis will only provide temporary relief and fluid may accumulate again causing further discomfort.

Blood tests

You will require daily blood tests to check your kidney and liver functions as well as to check that you are not becoming dehydrated. Your blood pressure and pulse will be monitored at regular times during the day.

Leaving hospital

You will be discharged from the hospital once your condition has improved and you are well enough to go home.

Further Information

If you need further information or if you have any concerns before you are discharged, please do not hesitate to ask the doctor or the nurse looking after you, or the staff of the Fertility Clinic where you were treated initially. Social worker counsellors, chaplains and Kai Atawhai support is also available. If you have any concerns after you are discharged, please contact the fertility team providing your care.

Contact Details:

National Women's Hospital - Women's Assessment Unit (WAU)
09 3074949 ext:25900

National Women's Allied Health (Social Work and Counselling Service) 09 307 4967 ext: 25967

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Women's Health
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