



# OVARIAN HYPERSTIMULATION SYNDROME (OHSS)

In approximately 3% of women undergoing IVF there is an over response to ovarian stimulation, ie too many follicles develop so that the ovaries become very enlarged. If this is suspected prior to oocyte collection, the patient may be "coasted" (which means treatment stopped or reduced to allow the hormones to settle down) or the treatment cycle may be "cancelled" and the ovaries allowed to return to normal size. Future treatment will require modification. Occasionally we may proceed with egg collection but not proceed to embryo transfer. Should this occur any healthy embryos can be frozen and replaced later during a natural, unstimulated cycle and this is much safer.

Unfortunately none of the above, or any other treatment, can guaranteed to prevent the recurrence of the syndrome which, if it does occur, usually becomes evident between two and five days after oocyte retrieval subsiding two to three weeks later if a pregnancy does not occur. It seems that in most cases the following five situations need to be present for severe hyperstimulation development:

1. A large number of follicles;
2. A high percentage of the follicles contain oocytes;
3. Very high oestrogen levels;
4. A very high fertilization rate; and
5. Most, if not all, of the embryos are of a high grade quality.

However, up to 50% of cases are associated with pregnancy in which case the symptoms may be more prolonged and severe. The symptoms are:

- Severe nausea and vomiting;
- Increased abdominal distension;
- Diarrhoea;
- Shortness of breath;
- Increased thirst; and
- Decreasing urinary output.

Mild OHSS, by far the most common form, is usually adequately treated by rest, fluids (2–3 litres per day) and mild pain relief.

Moderate to severe OHSS (approximately 1.5% of patients) is a very serious and potentially fatal condition in which the patient is extremely unwell. The precise nature of the syndrome is not completely understood but fluid leaks out from blood vessels and collects in large spaces such as the abdominal, lung and heart cavities and sometimes under the skin. This therefore reduces the circulating blood volume and because the red cells are unaffected this increases the thickness of the blood. This major disruption of the blood constituents may therefore cause death either by failure of adequate blood flow through some vital structure or from thrombosis of the blood vessels supplying that structure.

Early and vigorous medical management with hospitalization, intravenous fluids, usually anticoagulants and close monitoring of the blood biochemistry steadily brings this condition under control in almost all cases but it may take up to two weeks to completely resolve the condition and the patient may feel extremely unwell during that period of time.

Consequently, if you feel that you have any of the symptoms or if you are in any way concerned it is better to contact the centre early so that we can investigate if necessary and reassure you than to wait hoping that things will get better as symptoms can escalate quite rapidly.