INPATIENT MANAGEMENT - OVARIAN HYPERSTIMULATION SYNDROME

Admit to gynaecology ward / Adult Special Care Unit depending on severity of the disease. Contact the lead clinician for Reproductive Medicine Service and Obstetric Physician on-call for advice.

INDICATIONS FOR ADMISSION

- Intolerant to oral fluids
- Vomiting or diarrhoea within 48 hours of hCG injection
- Hypotension
- Decreased breath sounds
- Tense, distended abdomen or peritonism
- Ovarian size is less predictive than diarrhoea and vomiting developing within 48 hours of hCG trigger.

INITIAL INVESTIGATIONS

1. Urea, electrolytes and creatinine.
   The following levels indicate severe disease:
   - Sodium >135 mmol/L,
   - Potassium >5.0 mmol/L
   - Creatinine >0.100 mmol/L
2. Albumin: low albumin (<25g/L) indicates severe disease.
3. Full blood count (FBC) and haematocrit (haematocrit >48% indicates severe disease)
   Leukocytosis is common.
4. Coagulation studies (INR and APTT).
5. Abdominal ultrasound for ovarian volume and ascites.
6. Chest ultrasound (or x-ray) and pulse oximetry if clinical evidence of pulmonary compromise.

Note: Avoid pelvic examination as this may induce cyst rupture

ONGOING MANAGEMENT

The natural history is one of gradual resolution over time (10 to 14 days), paralleling the decline in human chorionic gonadotrophin (hCG), unless pregnancy occurs.

FLUID BALANCE AND DIET

1. Aim for a total of 2 to 3L / 24 hours – preferably orally. Normal saline if intravenous fluids are required.
2. Order a high protein diet in consultation with the dietician.
3. Monitor urine output (minimum 30mL/hr).
4. Initially manage oliguria with fluid bolus. Consider an infusion of plasma expander.
5. Paracentesis, if appropriate, should be performed with ultrasound monitoring.
**OBSERVATIONS**

- Four hourly blood pressure, pulse and respiratory rate.
- Daily abdominal girth (mark the abdomen).
- Daily leg check for signs of deep vein thrombosis.
- Daily weight and fluid balance chart.

**REGULAR INVESTIGATIONS**

1. FBC, urea, electrolytes and liver function tests every day in severe disease.
2. INR and APTT if baseline is abnormal or the disease is worsening clinically.
3. Quantitative serum hCG – 16 days after embryo transfer.

**PROPHYLAXIS FOR THROMBOSIS – PERIPHERAL OR CEREBRAL**

- Mobilise if possible.
- Graduated Compression Stockings
- 5000 units subcutaneous heparin twice daily or low molecular weight heparin (Enoxaparin 40mg/day)
- Analgesia with paracetamol plus codeine or pethidine
- Intravenous metoclopramide for nausea
- If hypoalbuminaemia is present (<25 g/L) consider intravenous infusion 4% albumin 500-1000mL over one hour to bring haematocrit to within 36-38%

**MANAGEMENT OF ASCITES**

Consider ascitic drain:

- in the presence of severe abdominal pain and vomiting due to ascites
- in the presence of pulmonary compromise with gross ascites
- if the woman is manifesting unresponsive renal compromise with urine output less than 900mL/day despite adequate hydration and gross ascites.

**Note:**

1. Paracentesis has not been demonstrated to be helpful in other circumstances and may result in complications.
2. Ovarian torsion requires surgical correction.

**CRITERIA FOR ADULT SPECIAL CARE UNIT ADMISSION**

1. Renal compromise or failure unresponsive to fluid management or paracentesis. This may require dialysis.
2. Any thromboembolic event.
3. Pulmonary compromise not responding to diuresis or paracentesis. This may require ventilation.
**CLINICAL CONSIDERATIONS**

*Be aware:*

- Ongoing pregnancy may make OHSS worse – the woman must be warned about this risk.
- The evidence for the therapeutic value of termination of pregnancy is based on one case report.
- Pleural and pericardial effusion may occur in addition to ascites.
- Younger women, those with PCOS and those with a history of OHSS are at risk of recurrence in subsequent cycles.

**REFERENCES (STANDARDS)**


National Standards – 1 Clinical Care is Guided by Best Practice
Legislation - Nil

Related Guidelines / Policies – Reproductive Medicine
Other related documents – Nil

**RESPONSIBILITY**

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