PERITONITIS TREATMENT GUIDELINES

Peritonitis is diagnosed if at least 2 of the following are present:

- Cloudy bag
- Abdominal pain
- PD fluid WCC >100

**Treatment:**

**Day 1:**

- Send 2 sterile universal containers of PD fluid to microbiology for white cell count (WCC) and microscopy, culture and sensitivity.
- Send a pair of blood culture bottles with 10ml of PD fluid in each to microbiology. Ensure that ‘PD fluid’ is written on the request forms under ‘Sample’, and put a red sticker on the form sent with the blood culture bottles.
- Patient should be seen by a doctor and antibiotics prescribed, with analgesia if necessary.
- Consider admission if patient’s condition requires it. If admitted to ward patients should have daily WCC sent to microbiology.

Patients on APD should change to CAPD until peritonitis has resolved.

- Treat with Intraperitoneal antibiotics for 14 days:
  
  Vancomycin 100mg IP in each 2 litre PD bag – 4 times daily
  +
  Ceftazidime 250mg IP in each 2 litre PD bag – 4 times daily

  If patient is allergic to ceftazidime or has a serious anaphylactic reaction to penicillin then substitute gentamicin for ceftazidine.

- If the patient is systemically unwell consider giving 1g IV vancomycin and 1g IV ceftazidime as once only doses at commencement of treatment. If this is considered necessary the maintenance dose of IP vancomycin must be reduced to 50mg per 2 litre PD bag.

**Day 2-3:**

If little or no improvement, consider catheter removal.

**Day 3-4:**

- Patient attends PD unit.
- Check vancomycin level
- Send 2 universal containers to microbiology for WCC
- If an organism is identified, discontinue appropriate antibiotic.
If a gram-negative organism is cultured, it may be appropriate to add gentamicin in addition to ceftazidime: seek advice from microbiologists.

Gentamicin dose:
- 16mg loading dose, fluid to dwell in abdomen for at least 6 hours
- maintenance 8mg/2 litre bag.
- Check gentamicin level 2 and 5 days after commencing.

**Day 7 and 10:**
- Patient attends PD unit.
- Check vancomycin level and adjust dose if necessary (see below).
- Send 2 universal containers to microbiology for WCC.

**Day 14:**
- Patient attends PD unit.
- Send 2 universal containers to microbiology for WCC.
- Stop treatment unless WCC >100.

**5 days post-treatment:**
- Patient attends PD unit.
- Send 2 universal containers to microbiology for WCC (to check no immediate relapse).

**Serum Antibiotic levels:**

*Vancomycin target level: 5-16mg/l:*
- If >16mg/l, reduce dose to 50mg per 2 litre bag.
- If <5mg/l, give 500mg vancomycin IV.

*Gentamicin target level: ≤ 2mg/l:*
- If necessary, reduce dose to 4mg per 2 litre bag

**Fungal peritonitis:**

If yeasts are seen on microscopy
- the catheter should be removed (contact surgeons)
- commence intravenous amphotericin (Ambisone)

**Indications for Catheter Removal:**
- Fungal Peritonitis
- Pseudomonas, gram negative or MRSA peritonitis not responding after 3 days
- 2 consecutive relapsing peritonitis (relapsing within 4 weeks of completing treatment)
- Resistant exit site infections not resolving after 4 weeks of treatment
References:


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