Chronic Liver Disease

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Case 1 - Confusion on a background of Chronic Liver Disease (CLD)

1. Initial questions over the phone?
   - Observations including GCS, and the trajectory of the observations
   - Clarify what is meant by confusion
   - The patient’s context (for example, alcoholic withdrawal becomes an issue 3-5 days into admission)

2. Differentiating hepatic encephalopathy from other causes of delirium
   - Slow speech, drowsy
   - Rare to have psychotic features
   - Hepatic flap present
   - May be constipated

3. Common precipitants for hepatic encephalopathy
   - Non compliance with meds such as lactulose
   - Sepsis – Spontaneous bacterial peritonitis, pneumonia, UTI
   - New meds – benzodiazepines, analgesics

4. Management for confusion on a background of CLD
   - Treat with Lactulose. If constipated, hrly or 2 hrly lactulose until 5 motions on the first day, and then qid to achieve 3 motions a day. Rifaximin if inadequate response to Lactulose. NG tube if Lactulose not tolerated.
   - Septic screen and commencement of Ceftriaxone; or, inpatients at risk of resistance, consider Tazocin
   - Medication review
   - Diagnostic tap
   - Ammonia level – not so much for JMOs, but as part of a broader workup
   - CTB may be low yield, but is important if there is an acute drop in level of consciousness, focal neurology or seizures

Case 2 - Ascites

1. Differential diagnosis
   - Decompensated liver disease with portal hypertension is unlikely in the absence of splenomegaly, low platelets, low albumin, or high INR.
   - Differentials include:
     - Alcoholic cardiomyopathy
     - Vasculitis and Nephrotic Syndrome
     - Malignancy and omental deposits
2. **Investigations**
   - Diagnostic tap including biochemistry (protein and albumin), cytology, microscopy, culture and sensitivity; Tuberculosis PCR and AFBs if the patient comes from a high risk area. Diagnostic tap is the important investigation in the workup of ascites. The differentials will depend on whether the ascitic fluid is exudate or transudate. The serum:ascites albumin gradient can help determine the cause.
   - Ultrasound, checking parenchyma and portal flow
   - Echo (especially with a raised JVP)
   - Urine albumin:creatinine

3. **Management**
   - Diuretics, starting with 50mg daily Spironolactone adjusted up by 50mg every 48 hours up to 200mg bd, then add frusemide. Treatment should be titrated with daily weights, aiming for a loss of a kg a day at most.
   - Albumin to help with the diuresis - 2 bottles a day
   - A sodium down to 125 is acceptable; if lower then fluid restrict
   - Salt restriction
   - If diuretic refractory, large volume taps are necessary. A bottle of Albumin should be given for every 2L drained

4. **Practice Points**
   - Large volume paracentesis can be performed without platelets or FFP if platelets are >20 and INR <3. The relationship between INR and coagulopathy is unclear as these patients can be in fact prothrombotic. Platelets and INR should be corrected for high-risk procedures.
   - Patients with Chronic Liver Disease can be sicker than you think. The prognosis is poor for those with decompensated liver disease. If planning surgery or chemotherapy, get gastroenterology involved earlier.
   - Be careful with medications, such as paracetamol or psychoactive medications, or even innocuous ones such as ondansetron.
   - Nutrition is important – start a high energy high protein low salt diet and contact the dietician