Managing Your Life with Hepatic Encephalopathy

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1. What is Hepatic encephalopathy (HE)?
- Hepatic encephalopathy, also known as portosystemic encephalopathy, is a complex but reversible neuropsychiatric disorder resulting from impaired liver function.
- It occurs to some degree in over 50% of patients with cirrhosis.
- The presence of HE portends a poor prognosis, with an estimated 1-year survival rate of only 40%.

2. Who is at risk for HE?
- There are 3 types of HE:
  - Type A: Acute liver failure
  - Type B: Portal systemic bypass
  - Type C: Cirrhosis and portal hypertension
- Type C is the most common.

3. How does HE occur?
- The abnormal liver is unable to filter toxins, epitomized by ammonia, from the blood, leading to deleterious effects on the brain.

4. What are the symptoms of HE?
- HE could be minimal (covert) or overt.
- Initial symptoms are usually subtle, and include forgetfulness, change in handwriting, reversal of sleep-wake cycle.
- As HE worsens, agitation and disinhibited behavior may develop.
- They could also develop asterixis (flapping tremors), seizures and coma.

5. How is HE diagnosed?
- Evidence of liver disease and portosystemic shunts.
- Blood ammonia is elevated in 90% of cases, but is a non-specific test.
- Abnormal EEG and psychometric testing.

6. How is HE treated?
- It is important that HE be identified and treated early.
- The goals of treatment of acute HE include:
  - Correcting the precipitating factor.
  - Reducing blood ammonia level.
  - Avoiding the toxic effect of ammonia on the brain.

- Non-absorbable disaccharides:
  - Lactulose increases stool elimination of nitrogen and reduced ammonia.
  - It is effective in lactase-deficient patients as well.

- Antibiotics:
  - Oral rifaximin has been shown to be effective in treating and preventing recurrence.
  - Other antibiotics, including metronidazole, vancomycin and neomycin could be used, but not known to be as effective.
  
- Other therapies: Intravenous LOLA, Zinc, sodium benzoate.
  - Liver transplantation usually leads to restoration of normal liver function and resolution of HE.

- Diet & nutrition:
  - Vegetable and dairy protein may be preferable to animal protein as they have better calorie-to-nitrogen ratio and increase stool elimination of nitrogen.

A balanced diet is encouraged and protein restriction discouraged.
Aboard of alcohol, smoking, fried foods.