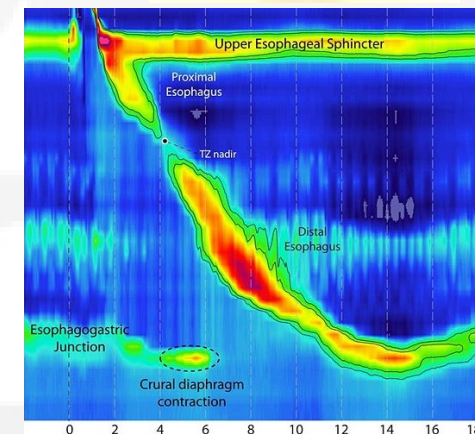
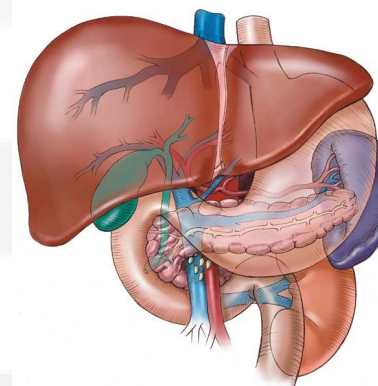
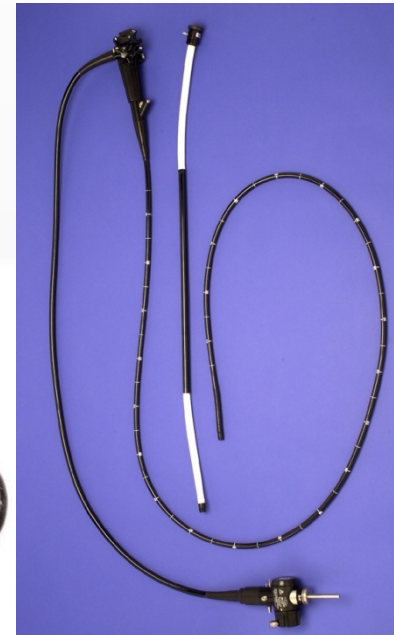


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Hepatology 101

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LFTs

- Very little to do with actual liver function
- Better terms:
 - Liver / biliary enzymes
 - Liver chemistry
 - Liver numbers
- Tests that reflect liver “function”:
 - Excretion: bilirubin
 - Synthesis: albumin; glucose; clotting factors

Acute viral hepatitis

- Hepatitis A
- Hepatitis E
- Hepatitis B
- Hepatitis C
- EBV
- CMV
- Other

Chronic viral hepatitis

- Hepatitis B (+/- delta)
- Hepatitis C

So who should you refer?

Chronic Hepatitis B

- Chronic HBV with:
 - Persistently raised ALT (HBeAg +/-)
 - Fluctuating LFTs (HBeAg +/-)
 - HBeAg –ve but high viral load (HBV DNA)
 - Rising AFP
 - Suspicion of cirrhosis/advanced liver disease
- Immunotolerant patients with higher risk factors
 - Male / >30 yrs / HBeAg +ve (even if normal ALT)
- Anyone you are concerned about ... who will turn up!

So who should you refer?

Chronic Hepatitis C

- HCV RNA +ve
- Desire to get rid of the virus
- (Not actively IVDU)
- Don't rely on ALT

Acute hepatitis C

- Refer all cases

A word on liver biopsy

- The usual question ... “Will I need one?”
Not any more!
- *Fibroscan* validated in chronic viral hepatitis
- But ...
 - Not useful if ascites, too fat, or any acute inflammation

Drugs and the Liver

- If LFTs abnormal, what can you prescribe?
 - Paracetamol
 - Statins
 - Antibiotics

Drug-induced liver toxicity

- Common culprits ...
 - Antibiotics
 - NSAIDs
 - Herbal remedies
 - Anticonvulsants
 - Statins
- Clues ...
 - Timeline
 - Eosinophils
 - Proof is withdrawal and re-challenge

NAFLD / NASH

- Non-Alcoholic Fatty Liver Disease
- Non-Alcoholic Steato Hepatitis
- Associated with ...
 - Obesity
 - Type II diabetes
 - Hypertriglyceridaemia
 - Metabolic syndrome

NAFLD / NASH

- What treatment works?
- Metformin
- Pioglitazones
- Fibrates / Statins
- Obesity surgery

NAFLD / NASH

- What treatment works?
- Lifestyle change ***WORKS!***
- Dietary change ***WORKS!***
- Exercise ***WORKS!***
- Losing weight ***WORKS!***

Other Hepatology stuff

- Gilbert's
 - Fluctuating isolated hyperbilirubinaemia
 - What's in a name?
- Haemochromatosis
 - HFE genes (Cys282Tyr; His63Asp; ... + ?)
 - Ferritin (iron stores) vs. Ferritin (acute phase)

Other Hepatology stuff

- Autoimmune hepatitis
 - More common in women (9:1) – ↑ALT
 - Association with other autoimmune conditions
 - Diagnosis: ↑Igs; +ve ANA or SMA or SLA (LKM)
 - Long term immunosuppression
- Primary biliary cirrhosis (PBC)
 - Female preponderance - ↑alk phos/GGT
 - Major symptoms are pruritus and fatigue

Other Hepatology stuff

- Primary sclerosing cholangitis (PSC)
 - 90% association with UC
 - Presents usually with ↑bilirubin
 - Long term risks: cirrhosis; cholangioCa; CRC
- Wilson's disease
 - ↓caeruloplasmin leads to copper accumulation
 - Presents liver failure; neuropsychiatric; haemolysis

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1 Hepatologist

2 Upper GI & 1 Colorectal Surgeons

Dietitian

Health Psychologist

Clinical Nurse Specialists



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High resolution Impedance Manometry

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BRAVO

CT colonography