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Malabsorption

- Malabsorption Syndromes
  - Coeliac disease
    - T cell mediated autoimmune disease of small bowel in which prolamin intolerance causes villous atrophy and malabsorption
    - Presentation
      - Can occur at any age (peaks in infancy and 50s)
      - One third are asymptomatic
      - Steatorrhoea; abdo pain; bloating; nausea & vomiting; angular stomatitis; weight loss; fatigue; incidental iron def anaemia
    - Diagnosis
      - An IgA antibody, 95% specific
      - Duodenal biopsy via endoscopy: villous atropy and crypt hyperplasia - reversing on gluten free diet
    - Management
      - Lifelong gluten free diet
      - Rice, maize, soya, potatoes, oats and sugar are Ok
      - Gluten free biscuits, flour, bread and pasta are prescribable
    - Complications
      - Anaemia; secondary lactose intolerance; increased risk of malignancy
  - Chronic pancreatitis
    - Causes
      - Typically alcohol
      - Rarely familial, CF. haemochromatosis, pancreatic duct obstruction
    - Presentation
      - Epigastric pain through to pack (relieved by sitting forward or hot water bottles on epigastrium / back)
      - Bloating, steatorrhoea, weight loss, brittle diabetes
      - Symptoms relapse and worsen
    - Tests
      - Ultrasound (pseudocyst), CT, AXR (speckled pancreatic calcification)
    - Management
      - Drugs
        - Analgesia
        - Lipase + fat soluble vitamins
      - Diet
        - No alcohol; low fat diet
      - Surgery
        - Indications: unremitting pain, weight loss
    - Complications
      - Pseudocyst; diabetes; bilary obstruction; local arterial aneruysm; gastric varices
- ▲▲ Malabsorption
  - Common in UK: coeliac disease, chronic pancreatitis, Crohn's
  - Decreased bowel; pancreatic insufficiency; small bowel mucosa; bacterial overgrowth; infection; intestinal hurry
- Nutrients required for Health
  - Vitamin B12
    - Absorbed in the terminal ileum
    - Deficiency causes: macrocytic anaemia, neuropathy, glossitis
  - Vitamin C
    - Absorbed in the proximal ileum
    - Deficiency causes: scurvy
- IBD
  - Ulcerative Colitis
    - Relapsing / remitting inflammatory disorder of colonic mucosa; never spreads proximal to ileocaecal valve
    - Pathology
      - Hyperaemic / haemorrhagic granular colonic mucosa +/- pseudopolyps
      - Inflammation is normally not transmural
    - Histology
      - Inflammatory infiltrate; goblet cell depletion; glandular distortion; mucosal ulcers; crypt abscesses
    - Epidemiology
      - Prevalence: 100 - 200 / 100,000
      - Incidence: 10 - 20 / 100,000 a year
      - Most present 15 - 30 yrs; 3 x more common in non-smokers
    - Symptoms / Signs
      - Symptoms
        - Gradual onset of diarrhoea (+/- blood and mucus); crampy abdo pain; increased frequency of bowels; systemic symptoms common during attacks (fever, malaise, anorexia, weight loss)
      - Signs
        - May be none
        - In acute / severe episodes: fever, tachycardia, tender / distended abdo
      - Peripheral Manifestations
        - Clubbing; oral ulcers; erythema nodosum (purple, painful nodules on shins); conjuctivitis; iritis (inflammation of iris); large joint arthritis; fatty liver
    - Tests
      - Usual bloods
        - FBC, ESR, CRP, U&E, LFT, cultures
      - Stool cultures to exclude infection
      - AXR: no faecal shadows, mucosal thickening
      - Sigmoidoscopy: inflamed, friable mucosa
      - Rectal biopsy: inflammatory infiltrate, goblet cell depletion, mucoal ulcers, crypt abscesses
    - Complications
      - Perforation and bleeding
      - Toxic dilatation of colon; venous thrombosis; colonic cancer
    - Management
      - Inducing remission
        - Mild UC (< 4 motions / day)
          - Prednisolone for 2 weeks (oral or retention enemas)
        - Moderate UC (4 - 6 motions / day)
          - Oral Prednisolone for 2 weeks + 5-ASA + steroid enemas
        - Severe UC (> 6 motions / day)
          - Treat as inpatient
      - Maintaining remission
        - 5-ASA
        - Infliximab
      - Surgery
        - 20% will require surgery at some point
        - Proctocolectomy and terminal ileostomy
        - Indications for surgery
          - Perforation; haemorrhage; toxic dilatation; failure of medical therapy
  - Crohn's Disease
    - Chronic inflammatory disease characterised by transmural granulmatoud inflammation; can affect any part of the gut but favours terminal ileum and proximal colon; skip lesions (unaffected bowel areas between areas of disease) differentiate Crohn's from UC
    - Epidemiology
      - Prevalence: 50 - 100 / 100,000
      - Incidence: 5 - 10 / 100,000 per year
      - Associations: high sugar, low fibre diet, altered cell mediated immunity, smoking, NSAIDs
    - Symptoms / Signs
      - Symptoms
        - Diarrhoea, abdo pain, weight loss
        - Fever, malaise, anorexia (with active disease)
      - Signs
        - Abdo tenderness, right iliac fossa mass, perianal absecess / fistulae / skin tags, anal / rectal strictures
      - Peripheral Manifestations
        - Ahthous ulceration (oral mucous ulcer), clubbing, erythema nodosum, iritis, fatty liver, large joint arthritis
    - Complications
      - Small bowel obstruction; toxic dilatation; abscess formation; fistulae; rectal haemorrhage; colonic cancer (rarer than in UC)
    - Tests
      - Usual bloods
        - FBC, ESR, CRP, U&E, LFT, cultures, serum iron, vit B12
      - Colonoscopy to assess disease extent
    - Management
      - Mild attacks
        - Prednisolone
      - Severe attacks
        - IV steroids, nil by mouth, IV hydration
        - Hydrocortisone IV, topical steroids for rectal disease