Peer group

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Diarrhoea

- Acute diarrhoea lasts for <2 weeks
- Chronic diarrhoea lasts longer than 4 weeks
- What are the potential causes of chronic diarrhoea?

Causes of chronic diarrhoea

- Infection
- Coeliac disease
- Exocrine pancreatic insufficiency
- IBD
- Microscopic / lymphocytic / collagenous colitis
- Bile salt malabsorption
- Small bowel bacterial overgrowth
- Endocrine eg hyperthyroidism
- Constipation with overflow diarrhoea
- IBS
- Colorectal cancer

Chronic diarrhoea – red flags

- Nocturnal symptoms
- Faecal incontinence
- Unintentional weight loss
- Blood mixed with stools
- Fever
- Iron deficiency anaemia
- Family history of colorectal cancer or IBD in 1st degree relatives

Chronic diarrhoea - investigations

- Infection => **exclude parasites, C.difficile**
- Coeliac disease => **coeliac screen**
- Exocrine pancreatic insufficiency => **faecal elastase**
- IBD => **faecal calprotectin**
- Microscopic / lymphocytic / collagenous colitis
- Bile salt malabsorption => **Previous cholecystectomy? Ileal resection?**
- Small bowel bacterial overgrowth
- Endocrine eg hyperthyroidism =>**TFTs**
- Constipation with overflow diarrhoea => **AXR**
- IBS

FBC
Iron studies
CRP
B12
Folate

Case 1

- 70 year old woman
- Watery diarrhoea with occasional faecal incontinence for 6 months
- No weight loss
- Previously well, on SSRI for depression
- No recent travel or antibiotic use
- Obs: T 37.2, BP 118/82, HR 76
- Abdo exam and PR exams normal
- Normal Hb and iron studies

Case 1

What is the most likely diagnosis?

a) Irritable bowel syndrome
b) Clostridium difficile colitis
c) Microscopic colitis
d) Colorectal cancer
e) Ulcerative colitis

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Microscopic/lymphocytic/collagenous colitis

- Characterised by chronic water diarrhoea without blood
- More common in women than men
- Onset 60-70s
- Can be associated with coeliac disease or certain drugs
- Colonoscopy normal macroscopically => need colonic biopsies to diagnose
- No malignant potential => colonoscopy surveillance not required
- Treatment depends on symptoms

Case 2

- 35 year old builder
- PMHx: Type 1 DM
- 3-4 loose BM/day with bloating for many years
- Eats a loaf of white bread per day
- Anti-TTG IgA mildly raised, IgA level normal

Case 2

What would you do?

a) No further investigations as symptoms sound like IBS

b) Diagnose him with coeliac disease and recommend gluten free diet

c) Refer for a gastroscopy + duodenal biopsies

d) Check HLA-DQ2/DQ8

Case 2

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Coeliac disease

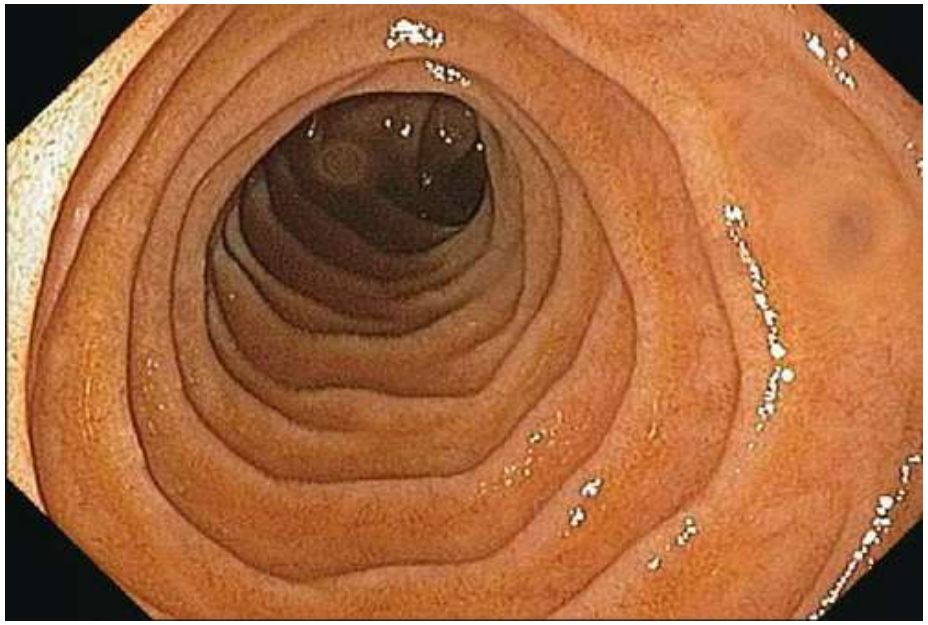
- Elevated coeliac antibodies do not confer a diagnosis of coeliac disease
  - ~1 in 20 people have elevated coeliac antibodies
  - One third of these people will have normal coeliac genotype therefore do not have coeliac disease

- Genotype testing does not diagnose coeliac disease
  - 99.4% negative predictive value
  - Only 1 out of 30 with DQ2 or DQ8 will develop coeliac disease

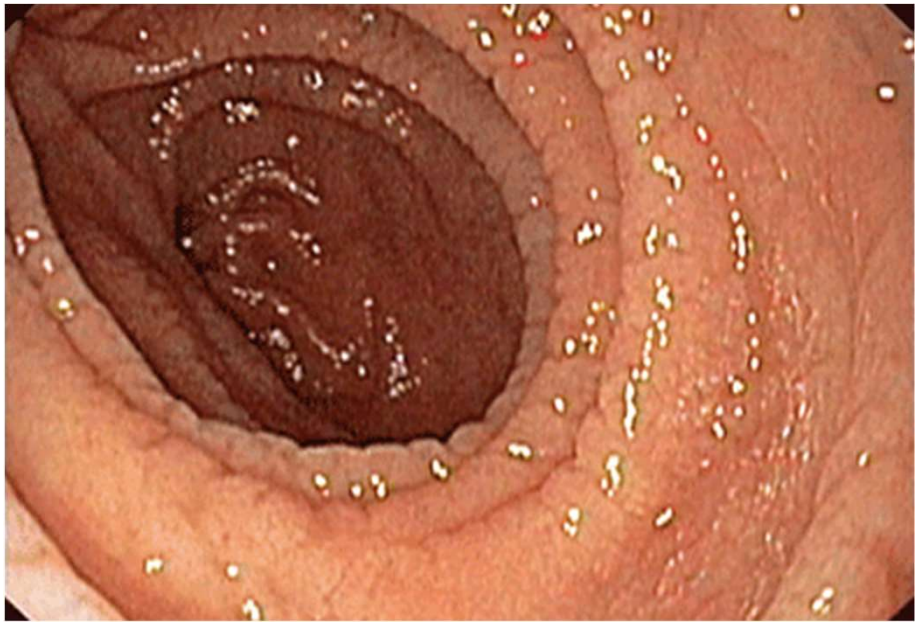
Coeliac disease

- Tissue is required for diagnosis (and easy to obtain)

Normal duodenum



Coeliac disease



Case 3

- 26 year old woman recently diagnosed with ulcerative colitis => started on mesalazine by gastroenterologist
- Presents to your practice with bloody diarrhoea (8/day) for 1 week
- Obs: T 37.9, BP 115/80, HR 95
- Bloods 1 day earlier
  - Hb 100, platelets 400, WCC 7
  - Na 138, K 3.4, urea 6.7, Cr 80
  - CRP 40

Case 3

What would you do next?

a) Stool specimen for MC&S and C.difficile

b) Paracetamol, encourage oral fluids and oral potassium replacement

c) Give a two week course of steroids

d) a, b and c

e) Refer to local hospital for admission

Case 3

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e) Refer to local hospital for admission => why?

Truelove and Witt's criteria for acute severe ulcerative colitis (ASUC)

- Because she had acute severe ulcerative colitis

- > 6 bloody stools per day PLUS one or more of the following
  - T >37.8
  - HR >90
  - Hb <105
  - ESR >30 (often substitute with CRP)

- ASUC is a life-threatening emergency

Acute severe ulcerative colitis (ASUC)

- Greater the number of clinical criteria associated with >6 episodes of bloody diarrhoea, the higher the chance of patient requiring colectomy would be

Truelove e Witts criteria Diarrhea with blood: >6 episodes/day + • Heart rate: > 90 bpm; • Temperature: > 37.8° C; • Hemoglobin: < 10.5 g/dl • Erythrocyte sedimentation rate: > 30 mm/h	Colectomy rate (n = 294 hospitalizations)
+ 1	9% (11/129)
+ 2	31% (29/94)
+ 3	48% (29/60)
+ 4	45% (5/11)

(Dinesen et al. J Crohns Colitis 2010;4 (4):431-437)

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T&W criteria for ASUC
>6 bloody BM/day PLUS 1 or more of below
- T >37.8
- HR >90
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Case 3

- Responded well to 5 days IV hydrocortisone.
- Discharged with tapering course of steroids over 8 weeks and started on azathioprine (tolerated well)
- Well over the next 6 months
- Presents to your practice one day with a red and painful right 1st MTP joint after an alcohol binge
- The working diagnosis is gout

Case 3

Which of these medications for gout would interact with azathioprine?

a) Prednisone

b) NSAIDs

c) Colchicine

d) Allopurinol

e) None of the above

Case 3

Which of these medications for gout would interact with azathioprine?

a) Prednisone

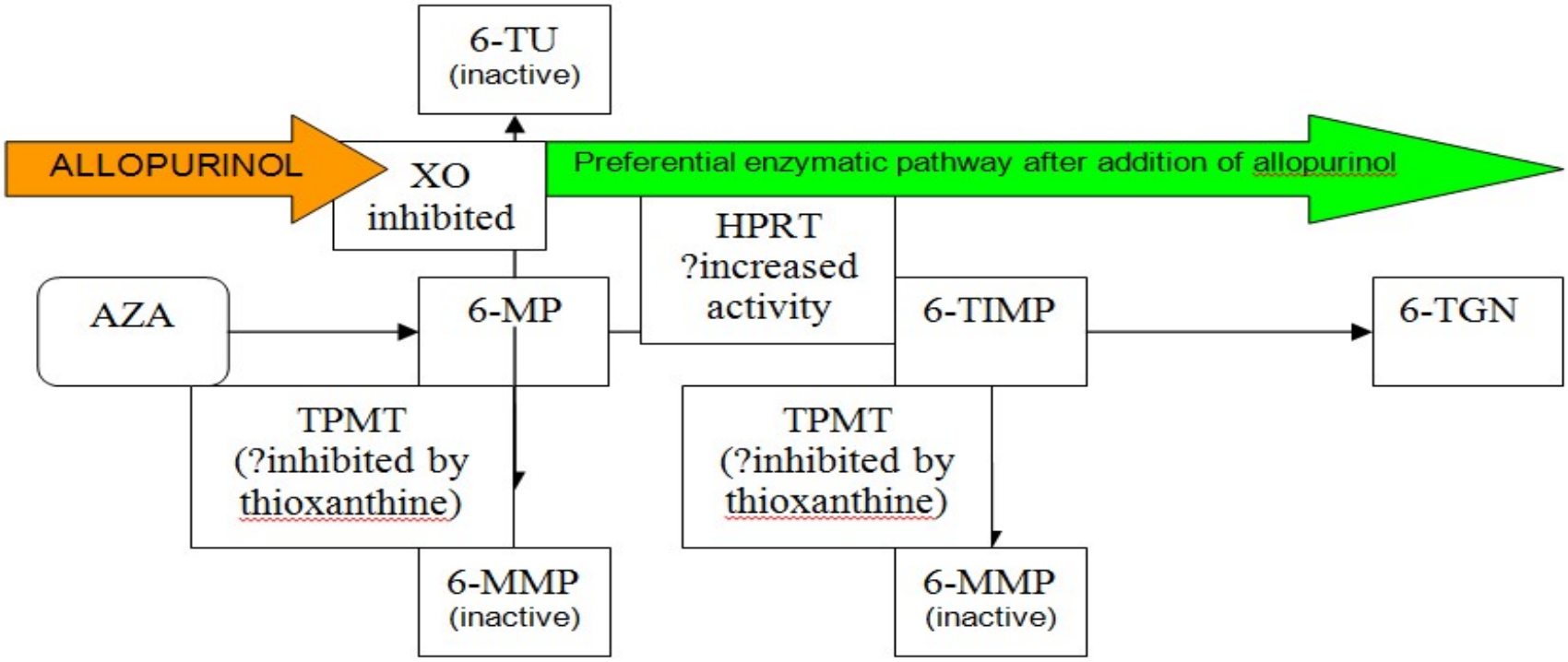
b) NSAIDs – can increase risk of IBD flare so would advise using sparingly

c) Colchicine

d) Allopurinol – would increase levels of 6-TG so will need dose reduction of azathioprine (please consult your friendly gastroenterologist)

e) None of the above

Thiopurine metabolism pathway & impact of addition allopurinol



Case 3

- Her UC remained well controlled on mesalazine and azathioprine for 12 months.

- She now wants to start a family and has been researching on Google re safety of her medications
  - Mesalazine => pregnancy category: Class C (negligible quantities cross placentra)

  - Azathioprine => pregnancy category: Class D (treatment should not generally be initiated during pregnancy

Case 3

Which of these drugs are contraindicated in pregnancy?

a) Mesalazine

b) Azathioprine

c) Methotrexate

d) Biologics e.g. infliximab and adalimumab

e) All the above

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e) All the above

Case 3

What would your advice be for this patient?

a) Stop both mesalazine and azathioprine

b) Continue on mesalazine but stop azathioprine

c) Stop mesalazine but continue azathioprine

d) Continue both mesalazine and azathioprine

e) Refer patient back to her gastroenterologist and let her specialist answer this question

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Family planning and IBD

- Active IBD results in up to 3-fold increased infertility
- IBD in remission – normal fertility
- Sulfasalazine and methotrexate associated with decreased sperm count

Pregnancy and IBD

- 2/3 of patients in remission at time of conception remain in remission throughout pregnancy
- No increase in birth defects
- Active IBD associated with IUGR, foetal loss & pre-term delivery
- Methotrexate is contraindicated
- Mesalazine, thiopurine and biologics are safe in pregnancy and should be continued

PIANO registry

- Multicentre prospective study of pregnancy in IBD and neonatal outcomes in USA

- Compared to those unexposed, use of immunosuppressants and biologics **NOT** associated with
  - Increase in congenital anomalies
  - Abnormal newborn growth and development
  - Other complications

Case 4

- 34 year old woman
- Adopted but recently found out that her biological father was diagnosed and died of colorectal cancer at 44
- Read about bowel screening in newspaper and wondered whether she needs a colonoscopy
- Asymptomatic
- Normal Hb and iron studies

Case 4

When should she be referred for her first screening colonoscopy?

a) When she is symptomatic or has red flags
b) At 34 ie now
c) At 39 ie 5 years from now
d) At 44 ie same age when her biological father was diagnosed
e) None of the above

Case 4

When should she be referred for her first screening colonoscopy?

a) When she is symptomatic or has red flags
b) At 34 ie now
c) At 39 ie 5 years from now
d) At 44 ie same age when her biological father was diagnosed
e) None of the above

For people with **1st degree relative(s)** diagnosed with colorectal cancer at **age <50**, **screening should begin 10 years earlier than the diagnosis of the youngest affected family member**

Family history of colorectal cancer (CRC) – non syndromic

- Magnitude of risk depends on
  - Degree of relation to affected family member
    - 1st degree relative (parent, sibling, child) => 2-3 fold increased lifetime CRC risk over general population
  - Age at onset of disease of affected family member
    - Diagnosed before age 45 years => CRC risk doubled
  - Number of 1st degree relatives with CRC
    - Two 1st degree relatives with CRC => CRC risk approaches 20%

Questions?