Tales of chronic diarrhoea

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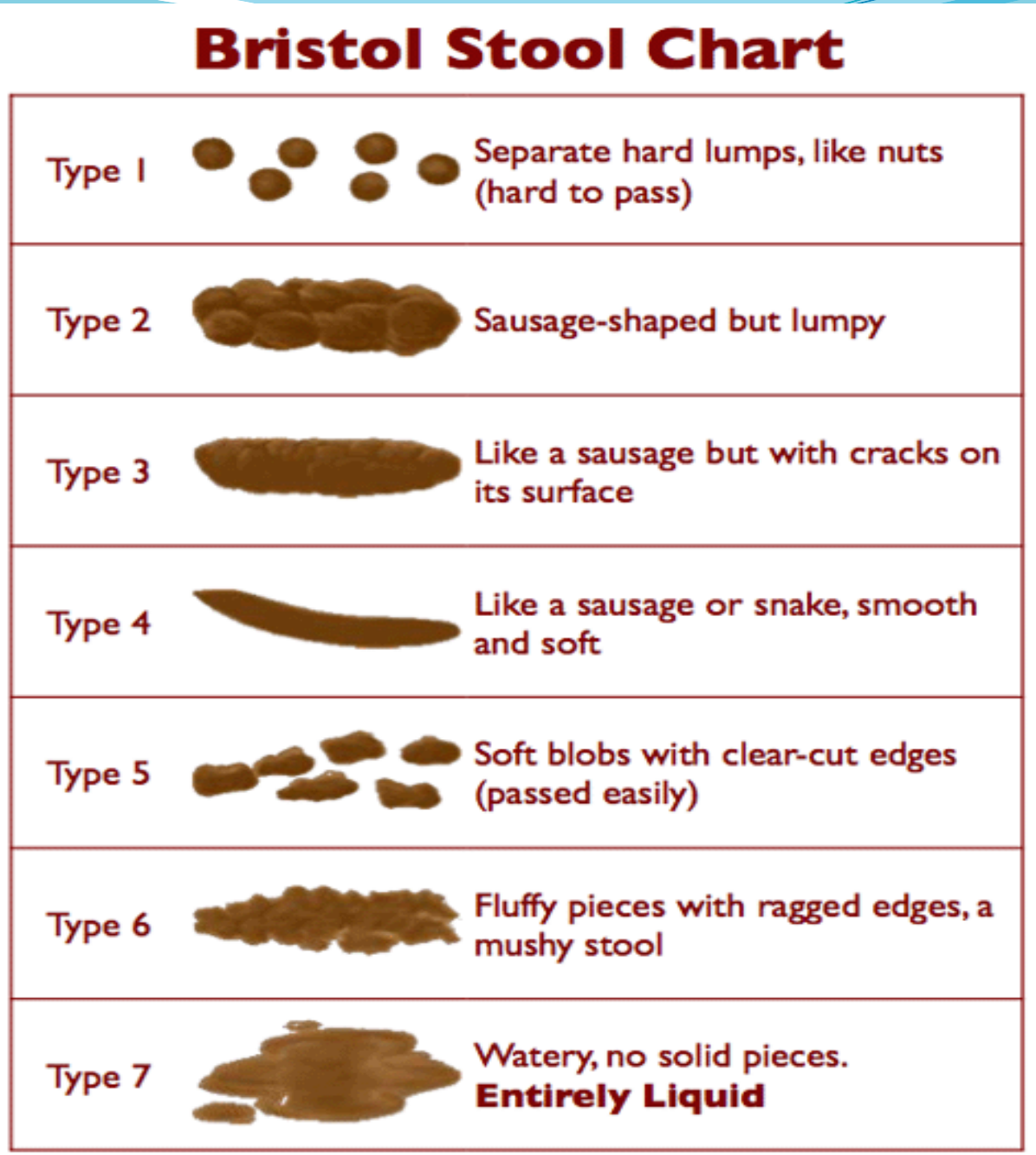
Chronic diarrhoea

- History is important
  - Is it truly diarrhoea?
    - Stool frequency
    - Stool consistency
  - Nocturnal symptoms?
  - Leakage/incontinence?

- Faecal calprotectin
  - Can be helpful if negative



Chronic diarrhoea - potential causes

- Infection eg C.difficile, parasites etc
- Coeliac disease
- IBS
- IBD ie Crohn's/UC
- Microscopic / lymphocytic / collagenous colitis
- Bile salt malabsorption
- Exocrine pancreatic insufficiency
- Small intestinal bacterial overgrowth
- Drugs eg metformin, laxative abuse etc
- Tumour
- Hyperthyroidism

Chronic diarrhoea - investigations

Readily available

- Stool MC&S for bacteria, C.difficile and parasites
- Coeliac screen
- Thyroid function tests
- Faecal calprotectin
- Faecal elastase

Not as readily available

- Colonoscopy
- Hydrogen breath test
  - SIBO
  - Lactose intolerance
  - Fructose intolerance

Who needs a colonoscopy?

- Red flags
  - Age ≥ 40
  - Palpable rectal mass
  - Nocturnal symptoms / incontinence
  - Weight loss
  - Persistent PR bleeding
  - Family history of bowel cancer/IBD
  - Unexplained iron deficiency anaemia
- Elevated calprotectin
- Positive FOBT
- Those with private insurance???

Case 1

- 30 year old man
- Diarrhoea & pre-defaecatory abdominal pain for years
  - No BM for 3-4 days then 4-5 loose BM/diarrhoea with abdo pain in 1 day
- Urgency ++
- Uses loperamide PRN & Codeine PRN for pain
- Gaining weight

Case 1

- Faecal calprotectin <50
- Stool MC&S negative
- TFTs normal
- Coeliac screen negative

Case 1 – diagnosis?

- Infection eg C.difficile, parasites etc
- Coeliac disease
- IBS
- IBD ie Crohn's/UC
- Microscopic / lymphocytic / collagenous colitis
- Bile salt malabsorption
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- Tumour
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IBS – Rome IV criteria

- Recurrent abdominal pain on average at least 1 day/week in the last 3 months, associated with 2 or more of the following criteria
  - Related to defaecation
  - Associated with a change in the frequency of stool
  - Associated with a change in the form (appearance) of stool

These criteria should be fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

IBS – Rome IV criteria

- Recurrent abdominal pain or discomfort (defined as an uncomfortable sensation not described as pain) on average at least 1 day/week (at least 3 days/month) in the last 3 months, associated with 2 or more of the following criteria
  - Related to defaecation
  - Associated with a change in the frequency of stool
  - Associated with a change in the form (appearance) of stool

These criteria should be fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

IBS subtypes

- Constipation-predominant
- Diarrhoea-predominant
- Mixed
- Unsubtyped

Case 1

- Alternating between constipation & diarrhoea
- Significant pre-defaecatory abdo pain
- Urgency ++
- Uses loperamide PRN & Codeine PRN for pain
- Management?
  1) Low fibre diet
  2) High fibre diet
  3) Konsyl-D/Metamucil
  4) Other laxatives
  5) Kiwifruit
  6) Prunes
  7) Loperamide
  8) Antispasmodics
  9) Low FODMAP diet

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Case 1

- Alternating between constipation & diarrhoea
- Constipation is the underlying cause
- Consider AXR
- Management for constipation
- Management?
  1) **Low fibre diet**
  2) High fibre diet
  3) **Konsyl-D/Metamucil**
  4) **Other laxatives**
  5) **Kiwifruit**
  6) **Prunes**
  7) Loperamide
  8) **Antispasmodics**
  9) Low FODMAP diet

Case 2

- 77 year old woman
- Watery diarrhoea with occasional faecal incontinence for 6 months
- Meds: Lansoprazole for reflux
- Colonoscopy normal macroscopically
- Right colon and left colon biopsies reported microscopic colitis

Case 2

- How would you treat her microscopic colitis?
  a) Stopping lansoprazole
  b) Tapering course of prednisone
  c) Loperamide PRN
  d) Budesonide
  e) Mesalazine / immunomodulators

Case 2

- How would you treat her microscopic colitis?
  a) **Stopping lansoprazole**
  b) Tapering course of prednisone
  c) Loperamide PRN
  d) **Budesonide (needs special authority application)**
  e) Mesalazine / immunomodulators

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

Microscopic/lymphocytic/collagenous colitis

High likelihood to cause microscopic colitis	Intermediate likelihood to cause microscopic colitis	Low likelihood to cause microscopic colitis
Acarbose	Carbamazepine	Cimetidine
Aspirin & NSAIDs	Celecoxib	Pembrolizumab
Clozapine	Paroxetine	Topiramate
Lansoprazole	Simvastatin	ACE inhibitors
Omeprazole		AT II receptor blocker
Ranitidine		Bisphosphanates
Sertraline		Beta blockers

(Drugs R D 2017; 17(1):79-89)

Microscopic/lymphocytic/collagenous colitis

- Colonoscopy normal macroscopically => need colonic biopsies to diagnose
- No malignant potential => colonoscopy surveillance not required
- Treatment depends on symptoms

Case 3

- 30 year old woman with ulcerative colitis (pancolitis) diagnosed 3 years ago, treated with mesalazine 2g bd
- Presents to your practice with bloody diarrhoea (8/day) for 1 week
- Obs: T 37.9, BP 115/80, HR 100
- Blood tests yesterday
  - Hb 95, platelets 400, WCC 7
  - Na 138, K 3.4, urea 6.7, Cr 80
  - CRP 50

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

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 => why?**

Truelove and Witt's criteria for acute severe ulcerative colitis

- 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)

Acute severe ulcerative colitis (ASUC)

- Is a life threatening emergency

- 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)

(J Crohns Colitis 2010; 4(4):431-437)

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 100**

T&W criteria for ASUC
>6 bloody BM/day PLUS 1 or more of below √
- T >37.8 √
- HR >90 √
- Hb <105 √
- ESR or CRP >30 √

- Blood tests yesterday
  - **Hb 95**, platelets 400, WCC 7
  - Na 138, K 3.4, urea 6.7, Cr 80
  - **CRP 50**

Case 3

- Responded well to 5 days IV hydrocortisone.
- Discharged with tapering course of steroids over 8 weeks and started on azathioprine (tolerated well)
- Her UC continued to grumble along on mesalazine and azathioprine so infliximab started
- Completely well for last 12 months after starting infliximab

Case 3

- Which of the following would you recommend for this patient?

a) Yearly flu vaccination

b) 5 yearly pneumococcal vaccination

c) Yearly skin checks

d) Regular pap smear

e) All the above

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a) **Yearly flu vaccination**

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c) **Yearly skin checks**

d) **Regular pap smear**

e) **All the above**

Case 3

- 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 placenta)
  - Azathioprine => pregnancy category: Class D (can cause fetal harm when administered to a pregnant woman)
  - Infliximab => pregnancy category not assigned

Case 3

Which of these drugs are contraindicated in pregnancy?

a) Mesalazine

b) Azathioprine

c) Methotrexate

d) Infliximab

e) All the above

Case 3

Which of these drugs are contraindicated in pregnancy?

a) Mesalazine

b) Azathioprine

c) **Methotrexate**

d) Infliximab

e) All the above

Case 3

What would your advice be for this patient?

a) Stop all drugs

b) Continue on infliximab but stop mesalazine and azathioprine

c) Continue on mesalazine but stop azathioprine & infliximab

d) Continue on current drugs

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

Case 3

What would your advice be for this patient?

a) Stop all drugs

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

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

Questions?