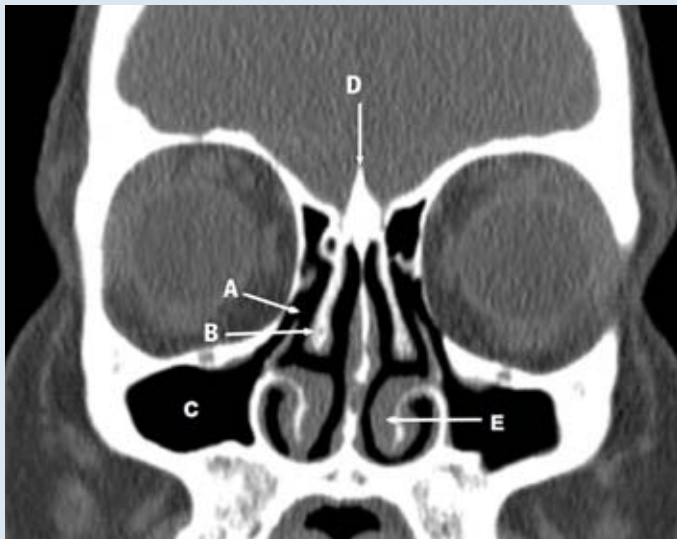


FOR SHORT ANSWERS

See p 826

FOR LONG ANSWERS

Go to the Education channel on bmj.com



ANATOMY QUIZ

Coronal computed tomography of the sinuses

Identify the structures labelled A, B, C, D, and E in this coronal computed tomography of the sinuses.

Submitted by A Nair

Cite this as: *BMJ* 2010;341:c5570

CASE REPORT

Abdominal pain and diarrhoea in a teenager

A 14 year old boy who was normally fit and well presented to his general practitioner with an eight month history of abdominal pain and diarrhoea. The diarrhoea was occurring 7-10 times a day and contained occasional blood and mucus. The patient described his abdominal pain as mild, central, and intermittent in nature, but it could increase in severity. The pain was so significant at times that it had caused problems with school attendance. Recently, he had become more lethargic and had lost weight despite a stable appetite. Of note in his medical history were several presentations to outpatient clinics with vague abdominal pain that settled. He had mild asthma but he was on no medication other than intermittent inhaled bronchodilator. His older sister had Crohn's disease and another sister had been diagnosed with irritable bowel syndrome.

Initial blood tests undertaken by the GP revealed mild hypochromic anaemia with a haemoglobin concentration of 110 g/l, an elevated platelet count of $493 \times 10^9/l$, an elevated C reactive protein concentration of 38 mg/l, and a raised erythrocyte sedimentation rate of 54 mm/h. Electrolytes and liver function were normal with albumin of 32 g/l. Stool cultures were reported as showing no bacterial growth.

The patient was referred urgently to the paediatric outpatient clinic. On examination in the clinic, he was noted to be slightly pale and had tenderness over his sigmoid area. His anus appeared normal. Height and weight were both on the 50th centile but no earlier measurements were available for comparison.

- 1 What are the differential diagnoses and what is the most likely diagnosis in this case?
- 2 What other clinical features are associated with these conditions?
- 3 What investigations would you order next?
- 4 What immediate management would you initiate?
- 5 What long term treatment needs to be considered?

Submitted by Fiona Louise Cameron, Richard Hansen, and David Goudie

Cite this as: *BMJ* 2010;341:c4932

ONEXAMINATION QUIZ Tourniquets

This week's quiz is on tourniquets and is taken from the onExamination revision questions for the FRCA primary exam.

Tourniquets may be used in which of the following patients?

- A Patients with deep vein thrombosis
- B Patients with diabetes
- C Elderly patients
- D Patients with limb infections
- E Patients with sickle cell disease

Cite this as: *BMJ* 2010;341:c5572

STATISTICAL QUESTION Number needed to treat

Researchers compared the efficacy of foot orthoses with both flat inserts and multimodal physiotherapy in the management of patellofemoral pain syndrome. They used a single blind randomised controlled trial study design. A total of 179 participants were recruited and randomised to six weeks of physiotherapist intervention with off the shelf foot orthoses, flat inserts, or multimodal physiotherapy.

Primary outcome measures included self assessment of change in pain at six weeks from baseline. Each participant recorded self perceived

change in pain on a five point Likert scale (categorised as "marked improvement," "improvement," "neither improvement nor worsening," "worsening," or "marked worsening"). Global improvement was considered to be self reported marked or moderate improvement in pain.

At six weeks, a greater proportion of those allocated foot orthoses reported global improvement compared with those allocated flat inserts (85.4% v 57.5%), giving a relative risk of 1.49 (95% confidence interval 1.11 to 1.99) and number needed to treat (NNT) of 4.

Which of the following, if any, are true?

- a) The number needed to treat is the number of patients who need to be treated before one of them reports global improvement in pain after six weeks
- b) The number needed to treat is the number of participants who need to be treated with foot orthoses for one more patient to report global improvement at six weeks than if they had been treated with flat inserts
- c) The number needed to treat is dependent on the difference between foot orthoses and flat inserts in the proportion of patients who reported global improvement at six weeks
- d) A number needed to treat of 4 would have been achieved only with the absolute risks of global improvement obtained for foot orthoses and flat inserts

Submitted by Philip Sedgwick

Cite this as: *BMJ* 2010;341:c5614