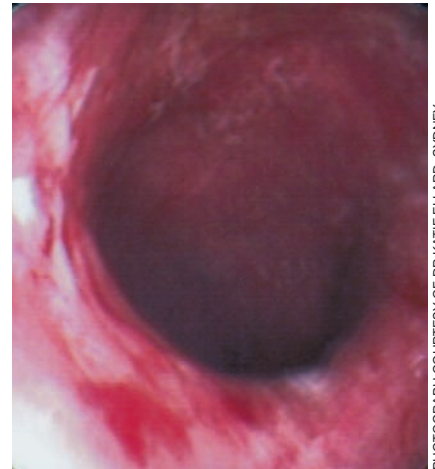


## Test your knowledge

**C**rohn's disease is a disabling condition of unknown cause characterised by exacerbations and remissions. Presentations can vary greatly, thereby delaying diagnosis. Treatment involves the GP, the physician and, in many cases, the surgeon. How accurate is your knowledge of Crohn's disease?

*The multiple choice questions in this quiz may have more than one answer.*

- What are the typical patterns of distribution of Crohn's disease?
  - disease limited to the colon
  - disease limited to the terminal ileum
  - disease affecting any part of the gut from the mouth to the anus
  - inflammation limited to the small bowel
  - perianal disease, including fistulae, fissures and abscesses
- Which of the following are recognised presentations of Crohn's disease?
  - diarrhoea and abdominal pain
  - anaemia
  - fever of unknown origin
  - failure to thrive associated with diarrhoea in a child
  - recurrent perianal abscesses
- Some people with Crohn's disease develop a form of arthritis. What are the most typical distributions?
  - symmetrical involvement of the small joints of the hands
  - symmetrical involvement of the large joints of the limbs
  - asymmetrical involvement of the large joints of the limbs
  - destructive arthritis of the small joints of the hands
  - inflammation of the sacroiliac joints
- Which autoimmune conditions are associated with Crohn's disease?
  - iritis
  - uveitis
  - pernicious anaemia
  - Sjögren's syndrome
  - glomerulonephritis
- You see a 20-year-old woman who describes periumbilical colicky pain, diarrhoea and weight loss. She has a mild anaemia associated with an elevated white cell count and ESR. Colonoscopy is normal. You suspect small bowel Crohn's disease. What is the best way to check the small bowel?
  - endoscopy
  - a CT scan
  - an MRI scan
  - a barium small bowel study
  - a nuclear medicine white cell scan
- Colonoscopy is the most appropriate way to investigate the large bowel in a patient with bloody diarrhoea. However, it is not always possible to distinguish Crohn's disease from ulcerative colitis on appearance alone. Which of the following is more suggestive of Crohn's disease than ulcerative colitis?
  - inflammation limited to the rectum
  - inflammation extending uniformly from the rectum to caecum, excluding the terminal ileum
  - serpiginous ulcers in the large bowel separated by normal mucosa, stricturing in the transverse colon and associated inflammation of the terminal ileum
  - inflammation from the rectum to the splenic flexure only
  - inflammation from the rectum to the hepatic flexure
- Biopsy samples from involved tissue in a patient with Crohn's disease are not always helpful in distinguishing the disease from ulcerative colitis. However, there is a biopsy finding



PHOTOGRAPH COURTESY OF DR KATIE ELLARD, SYDNEY

Figure. Active colonic Crohn's disease at colonoscopy.

- that is typical of Crohn's disease. What is it?
- a caseating granuloma
  - a noncaseating granuloma
  - amoebae
  - a layer of collagen beneath the bowel mucosa
  - excessive eosinophils
- Unfortunately, there is currently no cure for Crohn's disease. Surgery is frequently required, and there are some new therapies being trialled, including infliximab (antitumour necrosis factor), antimycobacterial therapy and thalidomide. At present, which of the options are commonly used to treat active disease of the small bowel and colon?
    - a gluten-free diet
    - oral prednisolone
    - azathioprine
    - sulfasalazine
    - mesalazine.

### Reference

- Sartor RB. New therapeutic approaches to Crohn's disease. *N Engl J Med* 2000; 342: 1664-1666.

Answers appear on the inside back cover.

### (to questions on page 115)

**1. c, e**

Crohn's disease can involve any part of the gut, from the mouth to the anus, and is frequently associated with perianal disease.

**2. a, b, c, d, e**

Crohn's disease can present in a number of different ways, including typical bloody diarrhoea associated with abdominal pain, failure to thrive or pyrexia of unknown origin.

**3. c, e**

Arthritis in inflammatory bowel disease is most typically inflammation of the sacroiliac joints and an asymmetrical arthritis affecting large joints, such as the wrists or knees. It is associated with the HLA antigen B27.

**4. a, b**

Crohn's disease is associated with a number of other autoimmune conditions including iritis and uveitis, as well as arthritis and chronic active hepatitis.

**5. d**

The single most appropriate initial

investigation is a barium small bowel series, performed by a skilled radiologist.

Abnormalities may be seen on endoscopy (rarely), CT scan or MRI, but these are not first line investigations. A nuclear medicine white cell scan may be useful if there is doubt as to whether abnormalities on an x-ray are due to active inflammation or scarring from past disease.

**6. c**

Although it is not always possible to distinguish ulcerative colitis from Crohn's disease on appearance alone, there are some helpful indicators. In particular, inflammation in ulcerative colitis is usually present in the rectum and extends distally to varying extent, limited to the large bowel.

In Crohn's disease, there may be colitis involving the whole colon, but more typically there is a patchy involvement with deep ulcers or areas of inflammation separated by normal mucosa. The terminal ileum is frequently involved. Strictures are

occasionally present and can impede the colonoscope.

**7. b**

A noncaseating granuloma is the typical histological finding in Crohn's disease. A caseating granuloma is found in tuberculosis; a layer of collagen is associated with collagenous colitis (a very rare cause of diarrhoea-associated coeliac disease); and excessive eosinophils can suggest parasites or very rare conditions in which organs are invaded by eosinophils. Amoebae are found in infective amoebic dysentery.

**8. b, c, d, e**

The treatment of Crohn's disease is far from satisfactory. The current mainstays of treatment include sulfasalazine, olsalazine and mesalazine, prednisolone and azathioprine. Other immunosuppressive options include methotrexate and 6-mercaptopurine. A gluten-free diet (which is used in coeliac disease) has not been shown to help in Crohn's disease.