Small bowel obstruction in an adult

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A 50-year-old man presented with a three-week history of abdominal pain and constipation. For three days prior to presentation he complained of increasing colicky abdominal pain with distension, anorexia, nausea and vomiting. The constipation was not absolute and there was no rectal bleeding. For two weeks prior to his presentation he took oral flucloxacillin for an infected chronic venous ulcer of his left leg. There was no history of abdominal surgery. He admitted to a heavy tobacco and alcohol consumption. On examination he was obese, distressed by pain and mildly dehydrated. He was afebrile but tachycardic. There were no features of chronic liver disease. The abdomen was centrally distended and generally tender with guarding and rebound tenderness, particularly on the right side. Bowel sounds were tinkling. Hernial orifices were clear and rectal examination was normal. He had a raised purpuric rash located mainly on the lower limbs and buttocks. The rash had formed crusts in areas (figure 1). On the left leg a chronic venous ulcer was surrounded by an area of resolving cellulitis. There was pitting oedema of both ankles.

Urine microscopy revealed >100 white blood cells/ml (normal <5) and >100 red blood cells/ml (normal <1). Plain abdominal X-rays were taken (figure 2). Blood results showed a haemoglobin of 16.7 g/l (normal 135–170 g/l) and a white cell count of $19.7 \times 10^9/l$ (normal $3.5-9.5 \times 10^9/l$) consisting predominantly of a neutrophilia with toxic granulations. Serum urea was elevated at 26.2 mmol/l (normal 2.0–8.5 mmol/l) as was serum creatinine, 0.20 mmol/l (normal 0.07–0.13 mmol/l). Electrolytes and liver function tests were normal except for a serum albumin of 26 g/l (normal 35–52 g/l). Serum amylase and coagulation studies were normal.

Figure 1 This raised rash was present over the patient's buttocks and lower limbs.

Figure 2 Supine plain abdominal X-ray

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Questions

- 1 What is the diagnosis?
- 2 Is laparotomy indicated?

Answers

QUESTION 1

Henoch Schoenlein purpura presenting as small bowel obstruction.

QUESTION 2

Laparotomy is indicated, on the basis of the signs of peritonism and the finding of small bowel obstruction in the context of a virgin abdomen.

Discussion

Henoch Schoenlein purpura is a rare condition in adults, although the typical features of palpable purpura, cramping abdominal pains and the histological findings on skin biopsy confirm the diagnosis in the case presented.¹ The aetiology of Henoch Schoenlein purpura is unknown but it is thought to represent a hypersensitivity response (box). The resulting diffuse IgA vasculitis of small vessels affecting several organs is responsible for the diverse clinical manifestations of the disease.²

In this case, the operative findings were of a low grade, incomplete small bowel obstruction secondary to multiple areas of subserosal and submucosal intramural haemorrhage. Each had produced an area of partial stenosis which, in association with considerable induration, resulted in a combined mechanical and functional obstruction. A biopsy of a skin lesion was taken in preference to small bowel. Histology revealed a moderate lymphocytic and leucocytoclastic vasculitis. Immunohistochemical staining demonstrated IgA deposition in the endothelium of the papillary dermis, consistent with Henoch Schoenlein purpura. The post-operative course was uneventful and normal gastrointestinal function was regained within five days. Renal function normalised one week after presentation. Because of the apparent improvement in the function of the several organs involved (including resolution of the purpura), it was not considered necessary to use corticosteroids.

Cream³ reported a series of 77 adult cases of Henoch Schoenlein purpura in which 44% had gastrointestinal symptoms. There was only one case of bowel obstruction, in which the findings were similar to the case presented above. Bailey⁴ described intussusception in

Causes of Henoch Schoenlein purpura

- upper respiratory tract infection
- food allergens
- insect bites
- immunisation
- exposure to cold
- drugs (including flucloxacillin)

four of the seven adult patients in his 1930 article. In children, the majority of laparotomies are performed after the characteristic rash has developed (median nine days), with only 5% preceding the onset of the rash.⁵ Additionally, most paediatric patients have abdominal tenderness and leucocytosis and these features are therefore considered to be poor discriminators at predicting the need for laparotomy.^{2,5} Pathologically, the most common abnormality in the gastrointestinal tract is mural and submucosal haemorrhage and oedema, as seen in our case, which may result in a focus for intussusception. Clinically, these gastrointestinal changes usually resolve spontaneously without the need for specific therapy such as corticosteroids.

In the adult the disease process is identical to that in children, and the course of the illness is also similar. Gastrointestinal involvement is less common in adults and bowel obstruction is rare. In the child, it is suggested that bowel obstruction and a palpable mass are two clinical features indicating the need for laparotomy.² As intussusception can also occur in adults, we suggest these same criteria be applied to this group. In our case of bowel obstruction, laparotomy was mandatory on clinical grounds, although no surgically correctable lesion was found.

Final diagnosis

Henoch Schoenlein purpura presenting as small bowel obstruction.

Keywords: Henoch Schoenlein purpura, intestinal obstruction

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3 Cream JJ, Cumple JM, Peachey RDG. Schoenlein-Henoch purpura in the adult. *Q J Med* 1970; 156: 461–84.

4 Bailey H. The acute nonsurgical abdomen of Henoch-Schoenlein syndrome in the elderly patient. *Br J Surg* 1930; 18: 234–40.

5 Martinez-Frontanilla LA, Haase GM, Ernster JA. Surgical complications in Henoch-Schoenlein purpura. *J Pediatr Surg* 1984; 19: 434–5.