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An elderly man with diarrhoea and cellulitis

M Hussien, M E L Ismail

A 73-year-old man was admitted with a 10-day history of diarrhoea. On examination he was afebrile. His pulse rate was 90 beats/min and blood pressure 120/70 mmHg. His abdomen was soft with normal bowel sounds. Anal digitation was negative. He was found to have an area of marked cellulitis on the lateral aspect of the right groin (figure 1). By the evening of his admission this area became necrotic, he also became pyrexial and developed subcutaneous emphysema of the anterior abdominal wall and the right thigh (figures 2 and 3).

Figure 1 Fully developed abscess of the right groin

Figure 2 Plain X-ray showing emphysema of the right thigh

Figure 3 Plain X-ray showing emphysema of the right thigh and anterior abdominal wall

**South Tyrone Hospital,
Dungannon, Co
Tyrone, N Ireland**
M Hussien

**Downe Hospital,
Downpatrick, Co
Down, N Ireland
BT30 6JA**
M E L Ismail

Correspondence to
Mr M Hussien, Surgical
Department, Altnagelvin
Area Hospital, Glenshane
Road, Londonderry,
N Ireland BT47 6SB

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Questions

- 1 What is the probable diagnosis?
- 2 What other investigations would you consider?

Answers

QUESTION 1

This is a case of perforated diverticular disease of the colon.

QUESTION 2

Sigmoidoscopy and X-ray contrast studies may aid in demonstrating the site and cause of perforation, however, the intra-abdominal pathologic characteristic can only be defined at operation². Computed axial tomographic scan of the leg and abdomen may define the presence and nature of the intra-abdominal pathologic abnormality.

Discussion

A review of the literature has shown that gastrointestinal perforation may present with subcutaneous emphysema with or without abscess formation.²⁻⁵

The underlying pathology is usually a retro-peritoneal perforation of a colorectal neoplasm

or diverticular disease; origin from the small bowel or appendix is distinctly less common.² Routes of extension of infection into the thigh can be either direct through the subcutaneous tissue or through naturally occurring defects in the abdominal wall, including the psoas muscle, through the femoral canal, by the way of the obturator foramen, and through the sacrosciatic foramen.^{1 2 5}

The condition has a high mortality rate.^{1 2} Treatment with wide local drainage and faecal diversion, together with the appropriate antibiotic therapy after vigorous resuscitation, remains the mainstay of surgical management.

Final diagnosis

Perforated diverticular disease of the colon.

Keywords: diverticular disease; diarrhoea; cellulitis; gastrointestinal perforation; emphysema

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