Self-assessment corner

Abdominal pain and acute hypotension

F De La Cruz-Vigo, R Gálvez-Valdovinos, F Sánchez-Bustos, R Pardo-García, J Cruz-Leiva

Case history

A 69-year-old man was admitted to hospital with left-sided thoracic pain of 48 hours duration. The pain was continuous and radiated to the left arm. On arrival his pulse rate was 60 beats/min, blood pressure was 90/70 mmHg. Examination of his cardiovascular, respiratory and abdominal systems was normal.

His chest and abdominal X-rays and electrocardiogram were normal. Laboratory tests revealed: haemoglobin 11.1 g/dl, haematocrit 32.9%, creatine kinase 61 IU/l, cytosolic-MB creatine kinase 16 IU/l.

Two hours later the patient collapsed, with severe abdominal pain. His blood pressure was 75/0 mmHg, and pulse rate 40 beats/min. Examination of his abdomen revealed increased muscle tone and generalised tenderness. Rectal examination was normal. Nasogastric tube aspirate contained no blood. The central venous pressure was –4, repeat haemoglobin 6.8 g/dl and haematocrit 21.4%. An abdominal CT scan was performed (see figure).

Figure

Question

What is the most likely diagnosis?

**Department of
Surgery, Hospital 12
de Octubre,
Complutense
University, Madrid,
Spain**

F De La Cruz-Vigo
R Gálvez-Valdovinos
F Sánchez-Bustos
R Pardo-García
J Cruz-Leiva

Correspondence to
Dr Felipe De La Cruz Vigo,
Nueva Zelanda 46, 4thD,
28035, Madrid, Spain

Accepted 19 January 1995

Answer

The abdominal CT scan shows free intra-peritoneal fluid, and a spleen surrounded by a hypodense mass.

Diagnosis

Spontaneous splenic rupture.

Comment

An emergency laparotomy showed 2500 ml of blood in the peritoneal cavity. The spleen had a

broken capsule and was removed. Histological evaluation revealed a normal spleen. Recovery was uneventful and the patient was discharged seven days after surgery.

The diagnosis of spontaneous rupture of the spleen is difficult to make, probably because this entity is rarely taken into consideration in the medical emergency department.¹⁻⁵ Splenic rupture usually follows blunt trauma. Rupture may occur if the spleen is infected, for example, as in infectious mononucleosis. This uncommon complication accounts for most of the deaths reported in this condition.

- 1 Atkinson E. Death from idiopathic rupture of the spleen. *BMJ* 1874; 2: 403-4.
- 2 Buciuto R, Kald A, Borch K. Spontaneous rupture of the spleen. *Eur J Surg* 1992; 158: 129-30.
- 3 Kiev J, Rothenberg B, Nance FC. A traumatic splenic rupture in a healthy adult. *Am Surg* 1991; 57: 727-9.

- 4 Lieberman ME, Levitt MA. Spontaneous rupture of the spleen: a case report and literature review. *Am J Emerg Med* 1989; 7: 28-31.
- 5 Bird D, Kelly MJ, Baird RN. Spontaneous rupture of the normal spleen: diagnosis by computerized tomography. *Br J Surg* 1979; 66: 598.