An unusual case of recurrent septicaemia

Catherine Robinson, David Cole, Stephen Chambers

DISCUSSION

This man presented with two apparently unrelated episodes of septicaemia caused by *Staphylococcus aureus* which usually originates from the skin, and *Klebsiella pneumoniae* which is an enteric organism. It was initially thought the second infection could be the result of line sepsis but the line was sterile when removed and the infections were explained by the needle perforating his inferior vena cava.

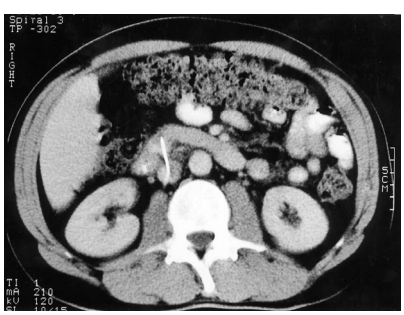

Figure 1. Abdominal computed tomography scan showing needle straddling the duodenum and inferior vena cava.

The needle must have been ingested but the patient had no recollection of having swallowed it. This is not uncommon (McCanse et al, 1981). Several risk factors have been described for ingestion of foreign bodies, including dentures with subsequent loss of tactile palatal sensation, young age, senility, psychiatric illness, rapid eating and poor vision; however, none of these were present in this case.

Most ingested foreign bodies pass uninterrupted through the gastrointestinal tract but if impaction occurs the most common site is the ileocaecal valve (Velitchkov et al, 1996).

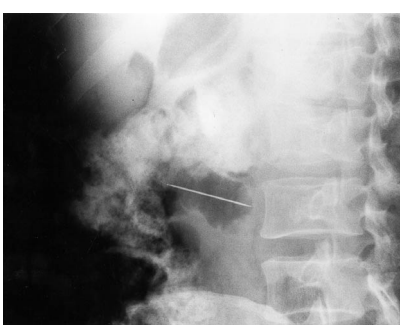

Figure 2. Abdominal X-ray with needle in-situ.

Perforation of the intestine is uncommon but has been reported with chicken and fish bones, toothpicks, glass fragments, a metal ring, a hat pin and a tooth filling (Maleki and Evans, 1970) as well as sewing needles (Velitchkov et al, 1996). Not surprisingly perforation may cause severe disease which runs a complicated course. Reported complications include generalized peritonitis, abscess formation, obstruction and haemorrhage (Maleki and Evans, 1970). However, there are no reports of septic thrombophlebitis and polymicrobial septicaemia caused by an ingested foreign body. HM

McCanse DE, Kurchin A, Hinshaw JR (1981) Gastrointestinal foreign bodies. *Am J Surg* **142:** 335–7

Maleki M, Evans W (1970) Foreign-body perforation of the intestinal tract. *Arch Surg* **101:** 475–7

Velitchkov NG, Grigorov GI, Losanoff JE, Kjossev KT (1996) Ingested foreign bodies of the gastrointestinal tract: retrospective analysis of 542 cases. *World J Surg* **20:** 1001–5

CASE REPORT

A 52-year-old farmer presented with a 1-week history of fever, rigors and myalgia. Three days before admission he had developed pleuritic left-sided chest pain. Clinical examination revealed a temperature of 38.4°C and bibasal pulmonary crepitations. Chest radiograph showed an area of patchy pulmonary opacity at the left lung base and a few small areas of opacity in the right lung. A presumptive diagnosis of pneumonia was made. Blood cultures subsequently grew *Staphylococcus aureus* and treatment with intravenous flucloxacillin was commenced. No other focus of infection was found, investigations included normal transthoracic echocardiogram and abdominal ultrasound scan.

The patient rapidly improved; however, 2weeks later he again became febrile. Further blood cultures grew Klebsiella pneumoniae. An abdominal computed tomography scan showed a high density linear structure straddling the second part of the duodenum and the inferior vena cava, representing a foreign body (Figure 1). Clot could be seen in the vena cava where it had been penetrated. Multiple ill-defined opacities seen in the lung base were consistent with embolization of the lungs. A plain abdominal radiograph showed the foreign body was a 4cm sewing needle (Figure 2). The needle and clot were removed surgically through an incision in the inferior vena cava and culture of specimens yielded both Staphylococcus aureus and Klebsiella pneumoniae (Figure 3) . The patient was treated with cefuroxime and made an uneventful recovery but had no recollection of having swallowed the needle.

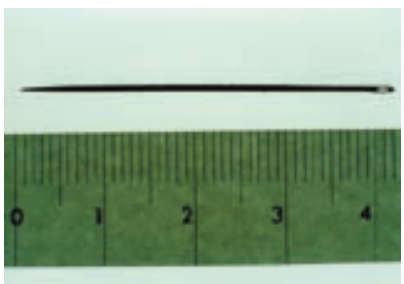

Figure 3. 4 cm sewing needle removed at laparotomy.

Dr Catherine Robinson is House Surgeon and **Dr David Cole** is Consultant Physician in the Department of General Medicine, and **Dr Stephen Chambers** is Consultant Physician in the Department of Infectious Diseases, Christchurch Hospital, Christchurch, New Zealand

Correspondence to: Dr C Robinson