CASE REPORT

A 33-year-old male presented with a seven-day history of fever, chills, nausea, emesis and persistent, severe epigastric pain. His past medical history was significant for schizophrenia and self-injurious behavior. On examination, he was febrile and tachycardic. His abdomen was soft and tender to palpation. There were no signs of peritoneal irritation. Abdominal radiograph is shown in Figure 1. Computed tomography (CT) of the abdomen is shown in Figure 2.

Question 1: What is the diagnosis?

Question 2: How would you treat this condition?
ANSWERS AND DISCUSSION

1. Ingested foreign body complicated by pyogenic liver abscess. Abdominal x-ray demonstrates an intraabdominal metallic object resembling an open paper clip in the epigastric region and CT shows the object penetrating the second portion of the duodenum and liver, resulting in a 7 × 6 × 6 cm abscess in the left lobe of the liver.

Foreign body ingestion is a frequently reported problem in the medical literature. Most foreign bodies pass through the gastrointestinal tract without complication; however, intestinal perforations and abscesses have been reported. Lambert published the first case of a hepatic abscess caused by foreign body perforation of the gastrointestinal tract in 1898 (1) Subsequently, few cases of pyogenic liver abscess caused by complications of foreign body ingestion have been reported (2). Considering the high rate of pica in mentally retarded and psychotic patients, the occurrence of intraabdominal sepsis and liver abscess is surprisingly rarely reported (3). Affected patients are often unaware of having swallowed the foreign body. Signs and symptoms may appear weeks or even months later. A high index of suspicion is often necessary to make the diagnosis of pyogenic liver abscess. Elevations of the white blood cell count, alkaline phosphatase, bilirubin, and transaminases are common.

2. In our patient, broad spectrum antibiotics were begun and he underwent percutaneous drainage of the abscess. Cultures from the abscess grew *Streptococcus viridans*, group B streptococcus, and mixed anaerobic flora. Three days later, percutaneous transcatheter retrieval of the paper clip (Figure 3) was successfully performed. The patient was discharged on oral antibiotics and the drainage catheter was removed two weeks later. At six months follow-up, he had recovered fully with complete clinical resolution of symptoms. Therapy of solitary pyogenic liver abscess consists of percutaneous drainage combined with intravenous antibiotics (4). Surgery may be required if a perforating foreign body is the cause of the hepatic abscess. However, as illustrated in the case presented, percutaneous removal of the foreign body via ultrasound or CT guidance may be accomplished, thereby avoiding surgery.

References


**Figure 3.** Fluoroscopic view showing percutaneous retrieval of the paper clip.