Foreign body ingestion is a common problem in pediatric populations, and up to 75% of cases occur in patients <4 years of age (1). Children ingest a variety of foreign bodies, some of which are more harmful and life threatening than others. However, hepatic foreign bodies are rare. Foreign bodies can reach the liver by one of three routes: direct penetration through the abdominal or thoracic wall, migration from the gastrointestinal tract, or through the blood (2). Most hepatic foreign bodies enter the liver via transmigration from the gastrointestinal tract (stomach, duodenum, and transverse colon) (3). Rapid diagnosis and early intervention are important to avoid morbidity and mortality (4).

A 15-year-old female was admitted with abdominal pain that had persisted for 3 days. She was referred to our polyclinic after the detection of a foreign body (sewing needle) on an abdominal radiograph. Her history revealed that she ingested a sewing needle 3 years previously. A physical examination demonstrated tenderness on the right lower abdomen with palpation. Abdominal radiography demonstrated a linear metallic opacity on the right upper quadrant (Figure 1). Grayscale ultrasonography revealed a hyperechoic needle traversing the right lobe of the liver parenchyma (Figure 2). An axial unenhanced computed tomography image revealed a hyperdense needle (arrow) in the liver parenchyma and subcapsular hemorrhage (arrowhead) that had been caused by needle irritation (Figure 3).

Written informed consent was obtained from the parents prior to the surgery. During exploratory laparotomy a hepatic flexure of the colon was attached to the right lobe of the liver. The foreign body (sewing needle) was palpable from both edges of the liver. The corroded and embedded needle was extracted with electrocautery without complications. The position of the needle in the liver and attachment to the colon to the liver suggested that the needle penetrated from the colon to the liver.
Patients who swallow blunt, radiopaque objects are usually followed using weekly radiographs, and parents are instructed to watch for the passage of the object in stool. Most objects pass frequently within 4-6 days of ingestion, but some might take up to 4 weeks. Endoscopic or surgical intervention is recommended when significant symptoms develop or if the object fails to pass through the gastrointestinal tract in 3-4 weeks (5). Uncomplicated liver foreign bodies can be followed without surgical intervention. Patients with complicated liver foreign bodies should be treated with surgical removal via laparoscopy or laparotomy. In addition, drainage of the abscess secondary to the foreign body and hepatic segmentectomy might be required as complementary treatment procedures (6).

In conclusion, foreign body ingestion necessitates close follow-up to prevent serious complications such as bowel perforation, obstruction, or erosion into adjacent organs.

REFERENCES
1. Sperry SL, Crockett SD, Miller CB, Shaheen NJ, Dellon ES. Epidemiology and management of oesophageal coin impaction in children. Dig liver Dis 2012; 44: 482-6. [CrossRef]