



Migration of two swallowed foreign bodies to different locations in the same case

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ABSTRACT

Foreign body ingestion can be seen at all ages, especially in childhood. Most swallowed foreign objects are disposed from the body without any health problems through defecation. It is rare that a foreign object perforates the intestine and migrates into the liver or peritoneum. In our case two unintentionally swallowed needles pierced the intestine and were located in the left lobe of the liver and small intestine mesentery. Foreign objects were detected in the abdomen of a 20-year-old female patient during examination performed for abdominal pain that lasted for three months. After a follow up period of three weeks the patient's complaints continued. She underwent laparotomy and both needles were removed in one session. It should be kept in mind that swallowed foreign objects can sometimes perforate the gastrointestinal system and may be located in different organs in the abdomen.

Key Words: Foreign body ingestion, migration, diagnosis, treatment

INTRODUCTION

Ingestion of a foreign body is a frequently encountered condition in pediatric, gastroenterological and emergency surgical clinics. Ingesting a foreign body is a problem that may occur in every age group, mostly affecting children. The migration of an ingested needle into the liver and the small intestine is rarely seen. The foreign body that was swallowed is eliminated via defecation in many cases without any complications. Herein a patient in whom two needles were successfully removed in the same session via laparotomy from the left lobe of the liver and the small bowel mesentery was presented.

Our aim is to emphasize that the foreign body may exit the intestine and be found in different localizations in patients that are being followed-up for foreign body ingestion.

CASE PRESENTATION

A twenty-year-old, mentally retarded female patient presented to the general surgery outpatient clinic due to intermittent abdominal pain that had been going on for nearly 3 months. The patient's vital parameters were stable, her physical examination was normal with no signs of abdominal tenderness, guarding or rebound tenderness. The patient's blood count and bio-chemical parameters were within normal ranges; in her direct abdominal x-ray taken in a standing position, two foreign bodies (needles), approximately at 5 cm distance from one another, were identified in the left hypochondrium (Figure 1). The patient was started on prophylactic antibiotics, she was recommended a diet rich in fiber and her direct abdominal x-ray images were monitored on a weekly basis. Since the location of the needles had not changed for 3 weeks, the patient received an abdominal tomography, which showed a metallic density extending into the left lobe of the liver causing an artifact and a metallic density probably between the small intestine segments on the left side of the abdominal mid-line. Therefore, the decision was taken to operate on the patient (Figures 2a, b). The patient's consent was obtained. Following the pre-operative preparation, a supra-umbilical midline abdominal incision was done. There were some adhesions between bowel loops and a small amount of serous secretion in the small intestine mesentery inside the abdomen. The adhesions were separated, and by usigna fluoroscope, it was seen that the first needle was partially buried in the mid-section of the small intestine while the second needle was partially buried anteriorly in the left lobe of the liver. The two sewing needles were removed (Figures 3a, b). The patient was discharged on post-operative third day without any problems and no pathological findings were encountered in the examination performed 3 months later.

DISCUSSION

The actual incidence of foreign body ingestion is not known. Foreign bodies are ingested most often by mistake (1). The bodies that are ingested most frequently include fishbone, chicken bone, needle, toothpick and wires (2). Most of the ingested foreign bodies move through the gastrointestinal system within 1 week, and the patients recover with no problems (3). Less than 1% of all the foreign bodies swallowed

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Figure 1. Two foreign bodies (needle) within 5 cm from each other in the left hypocondrium

cause perforation in the gastrointestinal system. The perforation occurs most often in the ileo-cecal, recto-sigmoid region, stomach and duodenum (2-5).

Foreign bodies are rarely seen in the liver (6, 7). They reach the liver by bloodstream, the gastrointestinal system, directly from the abdomen or chest wall (8). It has been reported that great majority of foreign bodies located in the liver, traveled through the gastrointestinal system (stomach, duodenum and transverse colon) (8). This route was accepted as the probable cause also in our patient.

Foreign bodies in the liver can present in various clinical scenarios ranging from non-specific gastrointestinal system symptoms to liver abscess (3). Direct abdominal x-ray imaging, upper gastrointestinal system endoscopy, colonoscopy, ultrasonography and computerized tomography (CT) can be used for diagnosis (9, 10). Ultrasonography and CT provide better results due to high resolution and accuracy rates, in terms of showing the atypical localizations and planning treatment (3).

The treatment methods include endoscopic or interventional radiological procedures, as well as laparoscopy or laparotomy (11). There are various surgical techniques ranging from the simple removal of foreign bodies to liver resection (11).

CONCLUSION

Although great majority of ingested objects are removed via passage through the gastrointestinal system, few of them may perforate the gastrointestinal system and may be identified in very different localizations as seen in this case. Due to these different localizations, both the diagnosis and treatment planning of these patients should be done carefully.

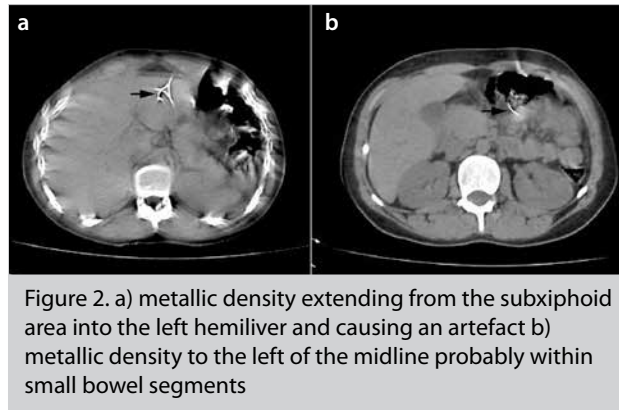


Figure 2. a) metallic density extending from the subxiphoid area into the left hemiliver and causing an artefact b) metallic density to the left of the midline probably within small bowel segments

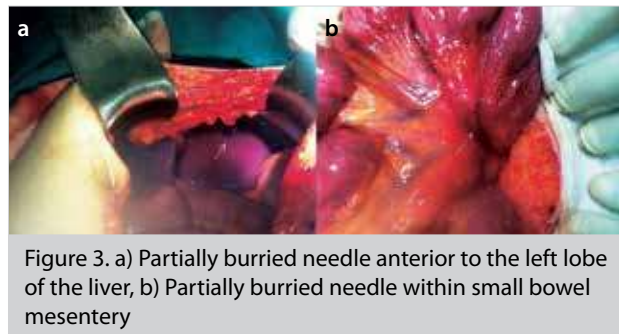


Figure 3. a) Partially buried needle anterior to the left lobe of the liver, b) Partially buried needle within small bowel mesentery

Informed Consent: Written informed consent was obtained from patient who participated in this case.

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