Foreign Body in the Liver: Sewing Needle

Karaciğerde Yabancı Cisim: Dikiş İğnesi

Karaciğerde Yabancı Cisim / Foreign Body in the Liver

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Özet

Yabancı cisim yutulması sık görülen bir klinik sorundur. Çoğu yabancı cisim gastrointestinal sistemi zarar vermeden boylu boyunca geçer. Delici ve penetratif yabancı cisimler mide ve ince barsak anslarını perfore ederek komşu organları etkleyebilir. Ancak bu nadir bir durumdur. Gastrointestinal sistem dışında yer alan yabancı cisimlerin lokalizasyonunun ve komşu organlarla ilişkisinin değerlendirilmesinde bilgisayarlı tomografi oldukça yardımcıdır. Bu yazıda; yutulan bir dikiş iğnesinin duodenumu perfore ederek karaciğere penetre olduğu bir olguyu sunmayı amaçladık.

Anahtar Kelimeler

Yabancı Cisim; Penetrasyon; Perforasyon

Abstract

Foreign body ingestion is a frequent clinical problem. Many foreign bodies go through the alimentary system without causing any damage. Incisory and penetrative foreign bodies may migrate and stay in the neighboring organs after perforation. Nevertheless this is an unusual case. The foreign bodies may be found outside of the gastrointestinal system and computed tomography is helpfull for localization and to identify their relationship between surrounding tissues. Here we report of a case in which a swallowed needle perforates duodenum and penetrates the liver.

Keywords

Foreign Body; Penetration; Perforation

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Introduction

Foreign bodies are rare in the liver parenchyma [1]. The frequency of occurrance was fish bone (33%), toothpick (27.3%), chicken bone (12.5%), and needle (9.1%) [2]. The penetration of foreign bodies through the wall of duodenum and stomach and their penetration to liver after swallowing is a rare occurence [1,3-5]. As in our case, swallowed foreign bodies, the foreign bodies may be found outside of the gastrointestinal system and computed tomography (CT) may be helpfull for localization and to identify their relationship between surrounding tissues.

Case Report

43-year old male patient attended to emergency department having swallowed a needle. His medical history revealed schizophrenia. His physical examination and laboratory findings were normal. Plain abdominal X rays showed lineer opacity resembling a needle (figure 1). In the abdominal CT ; a 5-centimetre-long needle like lineer metalic density was observed in the left liver lobe (figure 2,3). The patient was followed conservatively .



Figure 1. Plain abdominal X ray shows a lineer opacity resembling a needle in the left upper quadrant. There is also opasities on the left kidney region of staghorn stone.

Discussion

Foreign body ingestion is a frequent clinical problem. The cases are patients with psychiatric disorders, children and rarely healty adults [6]. Our patient had been diagnosed with schizophrenia.

Many foreign bodies pass through the gastrointestinal system all along without any harm [1,3-5]. Incisory and penetrative foreign bodies may reside in neighbouring organs after perforating stomach or the small bowels .However, this is very a rare occurence [3,5,6]. Gastrointestinal perforation has been reported in less than 1% of patients and the most commonly affected areas are the ileocecal and rectosigmoidal regions and duodenum [5].

Hepatic foreign bodies are rare, and may enter the liver by migration from the gastrointestinal tract, direct penetration



Figure 2. Axial image of the abdominal CT demonstrates a metalic density in the left liver lobe



Figure 3. Coronal reformat image of the 5 mm slice thickness abdominal CT demonstrates 5 cm needle like lineer metalic density in the left liver lobe

through the abdominal wall, or via the bloodstream. There are a few cases that a foreign body is found in the liver after perforating duodenum and stomach [1,3]. It is likely that the present case also had a silent perforation, thus the foreign body was in the left lobe of the liver.

It may be necessary to diagnose and treat immediately to prevent mortality and morbidity [3,4]. Most patients have non specific symptoms such as abdominal pain, fever, vomiting, anorexia or weight loss which are features of a systemic response against an infection or abscess formation. Hepatic abscess with fever, abdominal pain and jaundice are only present in a few cases. The results of routine laboratory studies are also non-specific [5]. Laboratory findings and physical examination were normal in our patient.

Foreign body is visualized as an opacity in radiograms. However they fail to identify exact location. Ultrasonography is safe and repeatible. Foreign bodies may be detected as hyperechoic structures in various shapes [6]. But patient dependent factors such as gas artifact and obesity and the small size of the foreign body may limit the utilisation of sonography. Endoscopy

may be helpfull if performed in early stages before foreign body penetrates the mucosa and the mucosa heals after that. Ultrasonography and CT may help to detect unusual localizations and to plan the treatment. CT reveals excellent results because of high resolution [3,5].

In our case CT findings show that the needle has migrated to liver after perforatng duodenum. Consequently CT is very helpfull to identify the location of foreign bodies swalloved and to detect complications such as perforation, hematomas or infections.

Observation is the preferred treatment without surgery in case of a foreign body in the liver which does not cause any complications. Foreign bodies which lead to complications may be removed with laparotomy or laparoscopy. Any abscess must be drained [1,3].

Competing interests

The authors declare that they have no competing interests.

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