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Images of Interest / Imagens de Interesse

Fish Bone Perforation: A Rare Cause of Liver Abscess

Perfuração por Espinha de Peixe: Uma Causa Rara de Abcesso Hepático

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Abstract

Perforations of the gastrointestinal tract by foreign bodies are relatively infrequent, and several associated complications may arise, namely infectious complications at the site of the perforation, as well as in adjacent structures due to enteric content. Computed Tomography plays an essential role in these cases to evaluate complications, in most cases managing to identify the foreign body.
We present a rare case of a liver abscess caused by a perforation with a fishbone in a 72-year-old woman.

Keywords

Computed tomography; Liver abscess; Foreign bodies.

Resumo

As perfurações do trato gastrointestinal por corpos estranhos são relativamente infrequentes, podendo surgir várias complicações associadas, nomeadamente complicações infeciosas no local da perfuração, bem como nas estruturas adjacentes pelo conteúdo entérico. A Tomografia Computorizada assume um papel fundamental nestes casos para avaliar as complicações, conseguindo na maioria dos casos identificar o corpo estranho.
Apresentamos um caso raro de um abcesso hepático causado por uma perfuração com uma espinha de peixe numa mulher de 72 anos.

Palavras-chave

Tomografia computorizada; Abcesso hepático; Corpos estranhos.

A female patient in her 70s with no other relevant past medical history presented to the emergency department with severe right upper quadrant pain. Laboratory tests revealed markedly elevated C-reactive protein and leucocytosis, with no significant liver function tests abnormalities.
A computed tomography (CT) was obtained. Non-contrast CT showed a linear high-density foreign body in the left lobe of the liver, next to the falciform ligament (Figure 1).

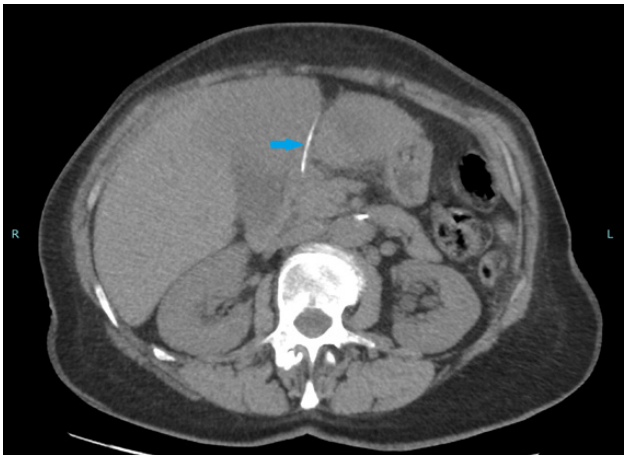

Figure 1 – On non-contrast CT, a linear high-density foreign body compatible with a fish bone was identified in the left lobe of the liver, next to the falciform ligament (blue arrow).

This foreign body was compatible with a fish bone and was in close proximity with the pylorus. After intravenous (IV) contrast injection, a large abscess occupying the majority of the left lobe of the liver with 12 cm was seen (Figure 2).

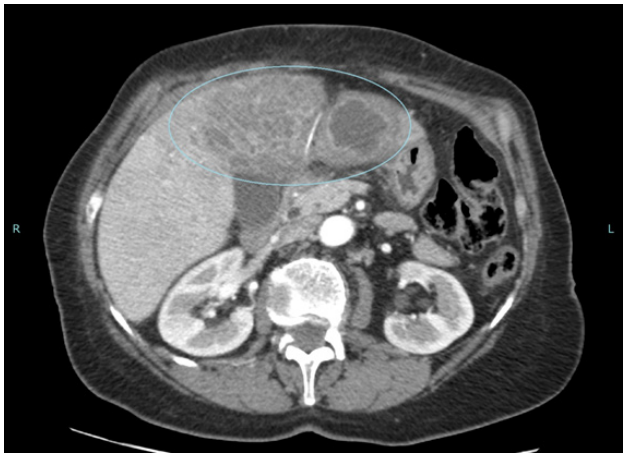

Figure 2 – After IV contrast injection, a large abscess occupying the majority of the left lobe of the liver (blue circumference) was identified.

There were no signs of pneumoperitoneum.
A percutaneous pigtail catheter was placed on the larger fluid collection on segment III of the liver, with drainage of most of the abscess. The drained pus was sent for bacterial culture, and it came positive for Streptococcus anginosus.
The patient received IV antibiotics and was discharged symptom-free after two weeks.
Follow-up CT revealed complete resolution of the abscess, with only mild heterogeneity near the falciform ligament of the liver, which was assumed to be residual (Figure 3). The fish bone remained unchanged.

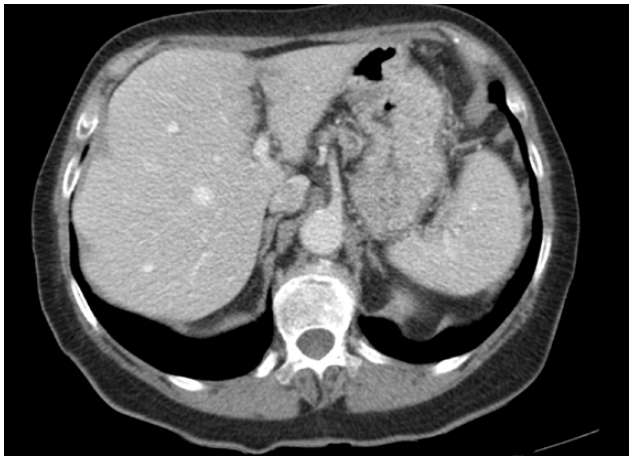

Figure 3 – Follow-up CT 2 months after showing complete resolution of the abscess, with only residual hypodensities next to the falciform ligament.

Foreign body ingestion is a common problem in clinical practice, affecting mostly the paediatric and elderly population, as well as those with oropharyngeal dysphagia. Most foreign bodies pass through the GI tract without issues, but about 1% can cause perforations, especially sharp ones like fish bones and toothpicks, making liver abscesses rare.[1] When present, due to its anatomic location, they are more frequently encountered in the left lobe of the liver, as in this case.[2]
Pyogenic liver abscesses typically present with fever, upper right abdomen pain, and jaundice. However, these signs don't always occur together as patients often have nonspecific symptoms such as vague abdominal pain, fever, and vomiting. They usually don't remember swallowing anything unusual, requiring a high level of suspicion to make the diagnosis.[2]
Laboratory analyses are also non-specific, usually showing elevated inflammatory markers as well as elevated liver enzymes and bilirubin. The diagnosis usually relies on CT as the best diagnostic test, with a sensitivity as high as 90%, as it may also demonstrate the location of the foreign body, which typically appears as a hyperdense object within the gastrointestinal tract accompanied by surrounding soft tissue oedema or inflammation.[3]
The treatment of choice in these cases remains controversial, but usually include antibiotic therapy, percutaneous drainage and/or open surgery. Foreign body removal can be accomplished by endoscopy, percutaneously or by laparotomy, depending on the case and location of the foreign body.

Ethical Disclosures / Divulgações Éticas
Conflicts of interest: The authors have no conflicts of interest to declare.
Conflitos de interesse: Os autores declaram não possuir conflitos de interesse.
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Confidentiality of data: The authors declare that they have followed the protocols of their work center on the publication of data from patients.
Confidencialidade dos dados: Os autores declaram ter seguido os protocolos do seu centro de trabalho acerca da publicação dos dados de doentes.
Protection of human and animal subjects: The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).
Protecção de pessoas e animais: Os autores declaram que os procedimentos seguidos estavam de acordo com os regulamentos estabelecidos pelos responsáveis da Comissão de Investigação Clínica e Ética e de acordo com a Declaração de Helsínquia da Associação Médica Mundial.

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