



Viscous Perforation Resulting in a Hepatic Abscess

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Background

Perforation of the gastrointestinal (GI) tract can present in an acute or indolent manner. Initial work-up via X-ray imaging may reveal pneumoperitoneum and, thereafter, a computed tomography (CT) scan may help elucidate the etiology of the perforation. In the case of a suspected foreign body (FB) ingestion, esophagogastroduodenoscopy (EGD) with upper endoscopic ultrasound (EUS), and possibly even surgical exploration, may be needed to make a diagnosis. Furthermore, injury to surrounding organs should be considered if a FB perforation is discovered. Here, we present the case of a patient with a gastric perforation secondary to a sharp, plastic FB ingestion, which was complicated by hepatic perforation with secondary abscess formation.

Case presentation

A 45-year-old woman was admitted for evaluation of right upper quadrant abdominal pain that began several hours prior to presentation.

CT scan of the abdomen/pelvis (Figure 1) showed a linear 2.5 cm density along the anterior/lateral wall of the region of the gastric antrum extending into adjacent soft tissues towards the liver.

EGD (Figure 2) revealed a small erosion/healing perforation site in the antrum with white material and surrounding edema. The foreign material could not be removed with biopsy forceps.

A radial EUS scope (Figure 3) revealed a hyperechoic structure in the antrum that extended through the gastric wall and into the liver parenchyma.

Given the patient's significant pain, surgical management was recommended. The patient underwent exploratory robotic laparoscopy with removal of a plastic shard that was embedded in a focal hepatic abscess.

Imaging

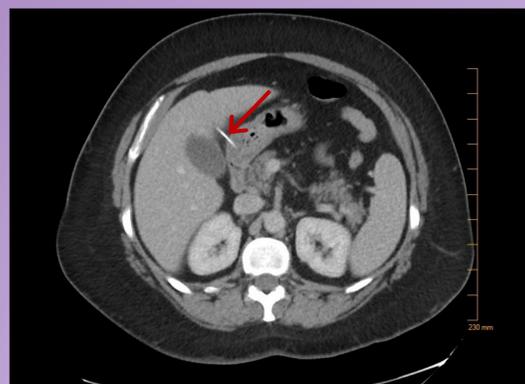


Figure 1: CT Abdomen Pelvis revealing a density extending from the stomach toward the liver

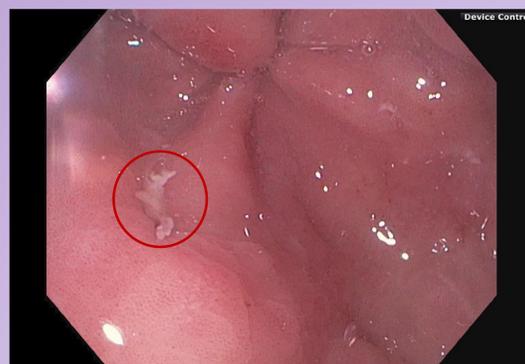


Figure 2: EGD revealing a small erosion/healing perforation in the antrum



Figure 3: EUS revealing a hyperechoic structure in the gastric antrum that extends into the liver parenchyma.

Conclusion

Gastric perforation due to an ingested foreign body is uncommon. Furthermore, a hepatic abscess caused by foreign body penetration of the gastrointestinal tract is extremely rare. This unusual condition should be considered when a patient presents with a hepatic abscess or even atypical abdominal pain.

As seen in this case, EGD with EUS can be valuable in making the diagnosis of a hepatic abscess secondary to gastric perforation by an ingested foreign body. Management of the perforation depends on the foreign body location and presence of any complications; removal is accomplished by laparotomy or laparoscopy.

GI perforation should be considered as part of the differential diagnosis in patients with abdominal pain who are found to have a hepatic abscess.

References

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