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clinical practice

Unusual liver abscess secondary to ingested foreign body: laparoscopic management

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SUMMARY: **Unusual liver abscess secondary to ingested foreign body: laparoscopic management.**

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Liver abscess is a cause of febrile abdominal pain and usually the origin of a liver abscess is ascending cholangitis, hematological diffusion, via the portal vein or the hepatic artery, or superinfection of necrotic tissue. Solitary pyogenic abscess with no obvious systemic cause may be secondary to a local event such as the migration of an ingested foreign body.

We report the case of a solitary liver abscess caused by an ingested foreign body, a fish bone, migrated through the gastric wall into the left lobe.

KEY WORDS: Hepatic abscess - Foreign body - Laparoscopy.

Case report

A 57-years-old woman was evaluated in another hospital with 2-weeks history of intermittent fever, epigastric pain, mild dyspnea and hypotension. Liver ultrasound and a CTscan of the abdomen revealed a large (about 9 cm in maximum diameter) lesion suggestive for an abscess in the left liver lobe and was transferred to our institution and admitted to our Surgical Unit. Upon arrival, she was found febrile (38° C), her abdomen was soft and tender to palpation in the right upper quadrant without any sign of peritoneal "irritation". Blood tests showed increased level of creatinine (2,0 mg/l), white blood cell count (WBC) of 11.000, elevated liver function tests (LFTs): AST 299 U/l, ALT 170 U/l, elevated C-reactive protein (CRP) value of 193 mg/l. Patient was started on intravenous fluid and antibiotics (Cefotaxime). The next day a CT scan of chest and abdomen showed mild right pleural effusion, a heterogenic ill-defined, low-density mass in the left lobe of the liver (8 cm x 8 cm) that appeared undissociable from the antrum of the stomach that was also noted to be slightly thickened and a linear radiopaque structure 4 cm in length was noted at the posterior margin of the left lobe of the liver (Figure 1). The patient denied any accidental ingestion of foreign body.

Few days later, after initial improvement in symptoms the patients complained worsening in abdominal pain and underwent an explorative laparoscopy and during the procedure an upper endoscopy performed showed a submucosal antral mass causing extrinsic compression on the gastric lumen with some spillage of white-thick fluid from prepyloric mucosa after compression of the mass. Following lysis of adhesions between the left lobe of the liver and the antrum of the stomach, a perforation of the gastric wall appeared; the lesion was carefully opened and following drainage of pus from the abscessual cavity of the liver, a foreign body 4 cm in length was removed. The gastric lesion was sutured with single layer of interrupted vicryl stitches. The foreign body removed was a fish bone. Postoperative course was uneventful and the patient was discharged in good clinical conditions 6 days after the operation.

Discussion and conclusion

The ingestion of foreign bodies, usually dietary, is a well-documentated clinical event with most passing th-

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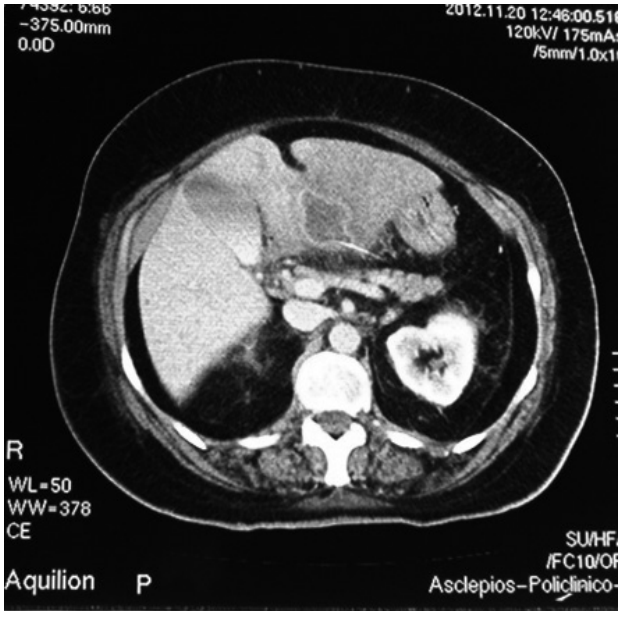

Fig. 1 - Abdominal CT scan. Solid lesion in the lower pole of the right kidney and polyp of the colon.

rough the gastrointestinal tract uneventfully within a week (1, 2). Gastrointestinal tract perforation occurs rarely and most common sites of perforation of gut are ileocecal junction and rectosigmoid region (3-5). Ingested foreign bodies perforating the gastric wall are quite rare and as postulated by Goh et. al it is possible that a thicker gut wall (stomach and large bowel) causes the foreign body to perforate more gradually, and the close proximity of the omentum and adjacent organs, such as the liver assists in "sealing" the perforation site (6-8). Gastric and duodenal perforation may result in rarely reported cases of foreign body- induced liver abscess. Nearly two-third of foreign bodies that are causes of complications are toothpicks, shells, chicken bones (9) There are few documented cases of a fish bone causing liver abscess (10). The most common presenting symptom is abdominal pain followed by more general symptoms of fever, chills, fatigue, anorexia, weight loss. Successful treatment of a liver abscess caused by a fish bone consists of drainage, removal of the nidus of infection, and antibiotic treatment. The removal of the fish bone is the best way to prevent recurrence of the pyogenic abscess. In the reported case the suspicious of a foreign body migrated in the left hepatic lobe and the thickened wall of the gastric antrum suggested to perform an endoscopy during the explorative laparoscopy allowing to clarify the diagnosis of foreign body perforation and identify the site of gastric perforation and so to successfully manage laparoscopically the abscess by drainage, retrieval of the fish bone from the abscessual cavity and suture of the perforation site of the gastric wall.

References

1. Glick WA, Simo KA, Swan RZ, Sindram D, Iannitti DA, Martinie JB. Pyogenic hepatic abscess secondary to endolumenal perforation o fan ingested foreign body. J Gastrointest Surg. 2012;16:885-887.
2. Ricci G, Campisi N, Capuano G, De Vido L, Lazzaro L, Simonatto G, Termini B, Turriziani V, Fidanza F. Liver abscess and pseudotumoral gastric lesion caused by chicken bone perforation: laparoscopic management. Case reports in Surgery. 2012. Article ID 791857, 4 pages.
3. Clarençon F, Scatton O, Bruguière E, Silvera S, Afanou G, Soubrane O, Vignaux O, Legmann P. Recurrent liver abscess secondary to ingested fish bone migration: report of a case. Surg Today. 2008;38:572-575.
4. Chintamani, Singhal V, Lubhana P, Durkhere R, Bhandary S. Liver abscess secondary to a broken needle migration. A case report. BMC Surgery. 2003;3:8.
5. Santos SA, Alberto SCF, Cruz E, Pires E, Figueira T, Coimbra L, Estevez J, Oliveira M. Hepatic abscess induced by foreign body: case report and literature review. World J Gastroenterol. 2007 March 7;13(9):1466-1470.
6. Cronck M, Thomson D, Walpole E. Unusual liver abscess. Internal Medicine Journal. 2005;35:134-135.
7. Goh BKP, Chow BKH, Quah HM, et al. Perforation of the gastrointestinal tract secondary to ingestion of foreign bodies. World Journal of Surgery. 2006;30(3):372-377.
8. Guglielminetti D, Poddie DB. Liver abscess secondary to ingestion of foreign body. A case report. G Chir. 1999;20(11-12):453-6.
9. Yen HH, Hsu YC. Gastrointestinal pyogenic liver abscess associated with a penetrating fishbone. J Gastroenterol Hepatol. 2010;25:1900.
10. De La Vega M, Rivero JC, Ruiz L, et al. A fishbone in the liver. Lancet. 2001;358:982.