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Pyogenic Liver Abscess Caused by Acute Appendicitis: A Case Report

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Abstract | **Case Report**

Pyogenic hepatic abscesses represent a pathology whose prevalence has increased in recent years. In the past, surgical treatment of pyogenic liver abscesses was the gold standard. Nowadays, percutaneous drainage has become the first-line treatment. We report the case of a pyogenic liver abscess caused by acute appendicitis. Our management consisted of a combined treatment: percutaneous drainage of the abscess followed by appendectomy.

Keywords: Acute appendicitis, pyogenic liver abscess, percutaneous drainage.

INTRODUCTION

Hepatic abscesses are most often multimicrobial when their origin is portal. They occur by bacterial translocation from an intra-abdominal infectious focus [1]. Abdominal imaging should be performed (CT scan), as well as a gynecological examination in women, looking for the etiology of the abscess. An endoscopic exploration must be carried out in search of an occult entry door (polyp or colorectal cancer) [2]. As for the treatment, percutaneous drainage or surgical treatment can both be proposed.

CASE REPORT

A 65-year-old woman presented with a one-week history of fever and abdominal pain. She had associated constipation and bilious vomiting. She had no significant past medical or surgical history. On examination, the patient was dehydrated, with normal blood pressure, pulse rate of 100, temperature of 39°C. The abdominal examination showed tenderness of the right hypochondriac region and hepatomegaly. Blood investigations showed hyperleukocytosis (WBC; 29 10^9 /L) with 80% polymorphonuclear leukocytes. C-reactive proteine (CRP) was elevated (140mg/dl). Abdominal Computed Tomography scanner with intravenous contrast showed acute appendicitis and liver abscess (Figure 1). We decided first to do percutaneous drainage of the liver abscess, followed by appendectomy. During drainage, the patient experienced septic shock requiring intensive care. After resuscitation, we admitted the patient to the operating room. The appendix was in a mesocoeliac position, collated by the small intestine. An appendectomy was performed. Parenteral antibiotic therapy, first probabilistic, then guided by antibiogram was also started. One week after the drainage, a control scan showed the almost complete disappearance of the hepatic abscess (figure 2). During the hospitalization, our patient developed dyspnoea for which a chest X-ray showed a large reactive right pleural effusion (Figure 3). Effective chest drainage allowed the right lung to return to the wall, evacuating approximately 800 mL of clear fluid. Apart from this complication, the evolution was favorable, and the patient was discharged from the hospital after the removal of the chest drain and the intrahepatic drain. The duration of hospitalization was 28 days. The anatomopathological study of the appendectomy specimen confirmed acute appendicitis.

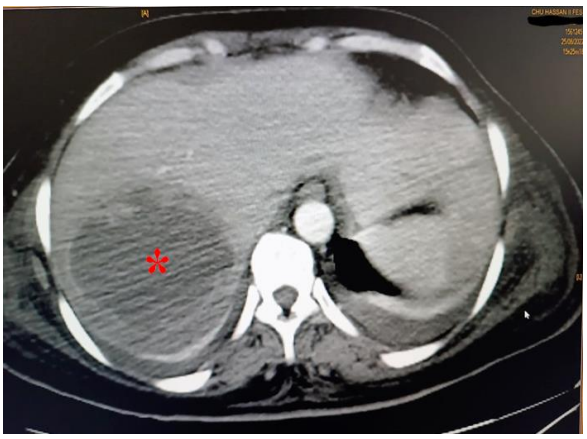

Figure 1: Liver abscess before percutaneous drainage (*)

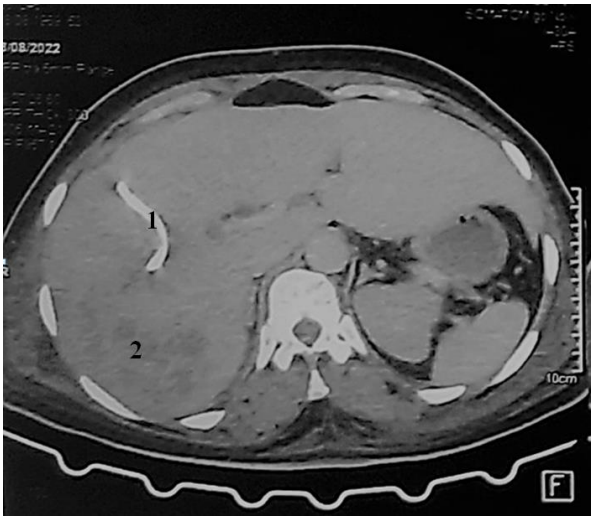

Figure 2: Percutaneous drainage (1) of the liver abscess (2)

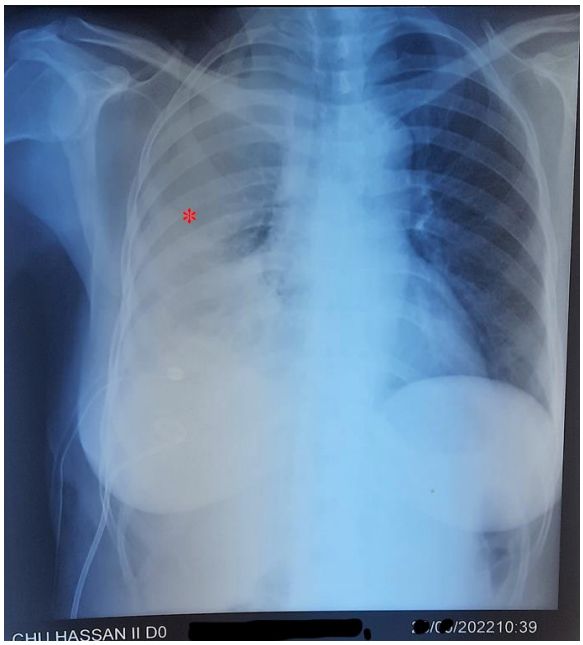

Figure 3: Chest X-Ray showing right pleural effusion (*)

DISCUSSION

The infection of the hepatic parenchyma leads to the constitution of a liver abscess. Hepatic abscess may be of biliary origin (40 to 60%), of portal origin (20 to 25%), of hematogenous or arterial origin (10%). More rarely, it can occur by contiguity or by inoculation. When there is no cause found, it is said to be cryptogenic [3]. The male gender, age over 50, low level socioeconomic are associated with a higher risk of pyogenic liver abscess. Some comorbidities like cirrhosis, chronic alcoholism, diabetes mellitus, end-stage renal failure, dialysis on a peritoneal catheter seem to increase the risk of occurrence of liver abcess [4]. The diagnosis calls on a range of clinical and imaging arguments [3]. As for hepatic liver abcsess, the sensitivity of the injected scanner is greater than that of ultrasound [5]. The therapeutic principles for hepatic abscesses are based on multidisciplinary medico-radio-surgical care. It's about antibiotic therapy, possibly combined with radiological drainage or surgery of the abscess. The treatment is also based on appropriate resuscitation measures, treatment of the etiology and management of associated comorbidities [3].

CONCLUSION

We report the case of a patient with a hepatic abscess of portal origin, complicating acute appendicitis. For this elderly and weak patient, we proposed a minimally invasive combined treatment: percutaneous drainage of the abscess followed by appendectomy. The outcome was favorable, despite prolonged hospitalization, due to the occurrence of reactive pleurisy of great abundance.

Consent: Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Competing interests: All authors declare no competing interest.

REFERENCES

1. Huang, C. J., Pitt, H. A., Lipsett, P. A., Osterman Jr, F. A., Lillemoe, K. D., Cameron, J. L., & Zuidema, G. D. (1996). Pyogenic hepatic abscess. Changing trends over 42 years. *Annals of surgery*, *223*(5), 600.
2. Kao, W. Y., Hwang, C. Y., Chang, Y. T., Su, C. W., Hou, M. C., Lin, H. C., ... & Wu, J. C. (2012). Cancer risk in patients with pyogenic liver abscess: a nationwide cohort study. *Alimentary pharmacology & therapeutics*, *36*(5), 467-476.
3. Rousset, S., Dutertre, M., Faruch-Bilfeld, M., Chalret du Rieu, M., Dubois, D., & Delobel, P. (2016). Abcès non parasitaires du foie – diagnostic et conduite à tenir. *EMC – Hépatologie*, 11(4), 1-11.
4. Hong, C. S., Chung, K. M., Huang, P. C., Wang, J. J., Yang, C. M., Chu, C. C., ... & Chien, C. C. (2014). Epidemiology and mortality of liver abscess in end-stage renal disease dialysis patients: Taiwan national cohort study. *PloS one*, *9*(2), e88078.
5. Lardière-Deguelte, S., Ragot, E., Amroun, K., Piardi, T., Dokmak, S., Bruno, O., ... & Kianmanesh, R. (2015). Hepatic abscess: diagnosis and management. *Journal of visceral surgery*, *152*(4), 231-243.