1130-0108/2015/107/1/51-52
Revista Española de Enfermedades Digestivas
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Rev Esp Enferm Dig (Madrid
Vol. 107, N.º 1, pp. 51-52, 2015

Letters to the Editor

Liver abscess due to *Klebsiella pneumoniae* and its relation to colon lesions

Key words: Liver abscces. Klebsiella pneumoniae. *Tubulovillous adenoma. High grade dysplasia.*

Dear Editor,

Pyogenic liver abscesses are often caused by biliary or digestive tract infections. In some cases a firm etiological diagnosis cannot be established –such lesions being classified as cryptogenic abscesses or abscesses of obscure origin. Different studies suggest that in such cases the abscess is produced as a result of disruption of the colon mucosa with secondary bacteremia via the portal route, as occurs for example in large tubulovillous adenomas or colorectal cancer (1,2). The present study describes a patient with relapsing cryptogenic liver abscess due to *Klebsiella pneumoniae*, in which a colon tubulovillous adenoma with high grade dysplasia was detected.

Case report

A 65-year-old male presented with type 2 diabetes as sole risk factor for the development of liver abscess (1). He was admitted to our hospital in May 2012, with the isolation of *Klebsiella pneumoniae*. Intravenous antibiotic treatment (piperacillin-tazobactam) was administered for two weeks, with percutaneous drainage under ultrasound guidance. Ten months later the patient presented a new liver abscess caused by the same microorganism in the same location, and which was likewise subjected to conservative management.

Since liver abscesses can originate from colon neoplasms (1,2), we requested colonoscopy, which revealed the presence of a tubulovillous adenoma with high grade dysplasia. Culture of the adenoma biopsy material isolated *Klebsiella pneumoniae* of a biotype similar to that isolated from the abscess culture. The patient remains asymptomatic 7 months after the end of abscess treatment and 5 months after endoscopic removal of the polyp.

Discussion

Recently, a review of the Taiwanese public health department including 2,294 individuals with liver abscesses between 2000-2009 reported a greater incidence of colorectal cancer during the follow-up of these patients –*Klebsiella pneumoniae* being the organism most often isolated in such cases. Taking these data into account, it seems reasonable to perform colonoscopy as a screening method for colon lesions in patients over 60 years of age with liver abscesses (3). This study corroborates the results of other publications that describe a relationship between both conditions (1,2,4,5). It should be mentioned that in Asian countries (Taiwan, South Korea), *Klebsiella pneumoniae* has displaced other classical pathogens (*Staphylococcus, Streptococcus, E. coli*) as the main organism isolated in these situations (6,7).

In our case, colonoscopy detected a villous adenoma with high grade dysplasia, and culture moreover yielded the same bacterium as that isolated from the liver abscess. We thus assume that the bacterium reached the liver via the portal route through mucosal disruption favored by the high grade dysplasia of the colon polyp.

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