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The role of hepatic enzymes in Crohn's disease

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Abstract

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Sir,

a systematic review has reported that, in Crohns' disease (CD) patients, the prevalence of cholelithiasis ranged from 11% to 34%, that of primary sclerosing cholangitis (PSC) from 1.2% to 3.4%, that of fatty liver disease 23% and hepatic amyloidosis occurred in <1% [1]. In a prospective, single-blind study we evaluated the prevalence of histological changes in the liver of patients with CD, without alterations of both liver biochemical tests and ultrasound, and their prognostic significance. The patients underwent liver biopsy at the time of intestinal resection. Exclusion criteria were a known liver disease. Thereafter, patients were clinically monitored every 6 months, upper abdomen ultrasound was performed at least every 12 months. Finally, after a mean interval of 14 years from liver biopsy, these patients were assessed using the Fibroscan® (Echosens®, Paris, France). Ultrasound examination in the pre-operative step showed steatosis in 10 (29%) patients. At biopsy specimens alterations in 60% of patients, without serious liver injuries, were found. No evidence of a significant liver damage progression after a mean period of 14 years were found. The average result (5.2 ± 1.2 kPa) obtained performing Fibroscan® was comparable to that (5.30 ± 1.45 kPa, $p = 0.63$) reported in healthy subjects [2].

A recent interesting retrospective study was performed in 383 CD patients newly diagnosed (not treated). One patient with chronic liver disease (small duct PSC) was excluded. Of the 383 patients included in this study, 131 had liver test abnormalities (34.1%), but liver diseases were not found, apart from liver steatosis in 6% of patients [3] (*versus* 29% in the previous study [2]).

The two studies [2, 3] agree that, considering the cost/benefit ratio, patients with CD should be considered as healthy from the liver perspective, without the need for additional biochemical and instrumental examinations than the general population, unless the presence of clinical or biochemical suspicion of liver disease.

In the more recent study [3], however, the authors found that, patients with liver test abnormalities, without an hepatic disease, more often developed complicated CD behaviour and more often needed hospitalization or surgery within 5 years of diagnosis than patients without liver test abnormalities. Patients with a C-reactive protein (CRP) <16 mg/L but with liver test abnormalities had a higher risk of developing complicated disease compared to those without liver test abnormalities. This demonstrates that the presence of liver test abnormalities does not merely reflect a higher CRP concentration, but may be a more sensitive indicator of an increased risk of complicated disease behaviour than CRP. At multivariate analysis, the presence of liver test abnormalities was independent risk factors for complicated disease behaviour; additionally, the presence of liver test abnormalities

was independently associated with an increased risk of hospitalizations (HR 1.7, p = 0.023) as well as surgery (HR 2.3, p = 0.015) [3].

In conclusion, in the absence of a known liver disease or of a risk factor for hepatic injury (e.g., a potentially hepatotoxic drugs), liver enzymes in CD do not need to be routinary measured. However, when increased, liver enzymes could predict a more aggressive CD behaviour.

Compliance with ethical standards

Funding None to declare.

Conflict of Interest None to declare.

Ethical approval The study was conducted in accordance with ICHGood Clinical Practice guidelines, the Declaration of Helsinki, and local laws and regulations.

Informed consent Informed consent due to the observational study has been obtained in the cited studies.

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