Transient Elastography in IBD Patients

To the Editor:

With interest, we read the original study of Palumbo et al. describing the prevalence and predictors of nonalcoholic fatty liver disease (NAFLD) in patients with inflammatory bowel disease (IBD).[1] In this work, transient elastography was used as a diagnostic tool to establish and classify NAFLD by measuring the degree of hepatic attenuation by fat and liver stiffness. Nonalcoholic fatty liver disease can range from isolated steatosis to fibrosis and even cirrhosis. Transient elastography (TE) is considered one of the most accurate noninvasive diagnostic tests to measure both steatosis and fibrosis of the liver.[2] The current gold standard to classify the severity of chronic liver disease is determining the METAVIR fibrosis stage on liver biopsy specimens.[3]

In their study, Palumbo et al. state that limited studies have been conducted on the use of TE to assess NAFLD in IBD patients. In addition, they mention that "previous studies were either of a retrospective nature or small sample size, employed less accurate diagnostic tools, such as ultrasound, or did not exclude patients with significant alcohol intake."[1]

In 2017, we published a prospective international cohort study measuring the degree of liver fibrosis in a population of 168 IBD patients using TE.[4] Although the major aim of our study was to compare the rate of liver fibrosis between those who were exposed to a thiopurine and those who were not, we focused on the prevalence of both fibrosis and cirrhosis, rather than the degree of steatosis. Moderate fibrosis was found in 4% of the participants, and severe fibrosis was detected in 1 patient. Cutoffs were TE measurements of 7.3–12.5 kPa for moderate fibrosis (F2) and 12.6–17.6 kPa for severe fibrosis (F3). Our cutoff values were based on a large population study that correlated TE measurements with METAVIR classifications for fibrosis in a population with different etiologies of chronic liver disease.[5]

The prevalence of fibrosis in our cohort is significantly lower compared with the prevalence described by Palumbo et al., who found significant and advanced liver fibrosis in 12.2% and 8.1% of their population, respectively. Cutoffs for significant fibrosis (≥F2) were TE measurement ≥7.0 kilopascals (kPa; medium probe) and ≥6.2kPa (XL probe). For advanced (>F3) fibrosis, these cutoffs were ≥8.7 kPa (M probe) and ≥7.2 kPa (XL probe).

The results of these studies illustrate variable rates of fibrosis and cirrhosis due to a range of liver diseases including NAFLD among IBD patients. A universal scoring system for fibrosis established with TE in IBD patients might decrease this variance and is crucial to standardizing the use of transient elastography as a diagnostic test for these patients. In addition, we believe that future studies are required to determine the exact prevalence of NAFLD in IBD patients, and these studies should encompass all available evidence about fibrosis and steatosis in IBD patients while using transient elastography as diagnostic tool.

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