Letter: the use of magnetic resonance scores (Anali) for risk stratification in PSC

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About the use of magnetic resonance scores (Anali) for risk stratification in PSC

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Abbreviations:

GBCA gadolinium-based contrast agent

MR magnetic resonance

MRC magnetic resonance cholangiography

PSC primary sclerosing cholangitis

VCTE vibration controlled transient elastography

Dear editor,

We read with interest the review written by Mahzar and Russo about non-invasive prognostic tests for primary sclerosing cholangitis (PSC)[1]. Although rare, PSC is a serious disease, associated with potentially lethal complications, notably cirrhosis and cholangiocarcinoma[2]. Liver transplantation is the only curative treatment for PSC and median transplant-free survival is approximately 12-21 years after diagnosis[3]. Identification of prognostic factors is essential for tailoring the follow-up strategies and testing new therapeutic modalities in homogeneous groups of PSC patients. As detailed in this review, over the last twenty years, different teams across the world, including ours, have identified several non-invasive prognostic tests for PSC patients[1]. First, our team demonstrated in a large retrospective study that liver stiffness measured by vibration-controlled transient elastography (VCTE) was an independent predictive marker of survival in PSC patients[4]. Next, we built 2 magnetic resonance (MR) risk scores (with and without gadolinium-based contrast agent (GBCA) administration)[5], called Anali scores, and showed that they were able to predict adverse outcome-free survival (defined by survival without liver transplantation or cirrhosis

decompensation) in two large international independent cohorts of PSC patients[6]. Furthermore, we showed that Anali score without GBCA and VCTE have a complementary prognostic value, so that their use in combination allows easy risk stratification of PSC patients[7]. In their review, Mazhar and Russo compared the prognostic performance of 8 different non-invasive tests and showed that Anali scores were the second best prognostic markers after the PSC Risk Estimate Tool (PREsTo)[8]. However, the comparison of the area under the curve of the prognostic tests is methodologically debatable because the design of the studies and their primary outcomes were different.

Carried by their enthusiasm, Mahzar and Russo wrote in their abstract that Anali scores are associated with the development of cholangiocarcinoma. However, in our studies (Anali scores with or without VCTE), the occurrence of cholangiocarcinoma was not recorded as an adverse outcome, but only the death or liver transplantation, that can potentially be caused by cholangiocarcinoma[6, 7]. This correction is important to be made for the appropriate use of Anali scores. Since surveillance for hepatobiliary cancer was reported to improve outcomes in PSC[9], MR cholangiography (MRC) is recommended for systematic surveillance of PSC patients[10]. However, no MRC features in PSC have been shown to associate with the risk of developing cholangiocarcinoma.

In their discussion, Mahzar and Russo stated that the routinely use of Anali scores is limited because it would require additional training and time to calculate for radiologists. We disagree with this point. Anali scores are simple as they only include 3 and 2 items which are respectively: dilatation of intrahepatic bile duct, dysmorphy, portal hypertension and dysmorphy, parenchymal enhancement heterogeneity after GBCA[5, 6]. These items are routinely assessed during the interpretation of MRC. Ranging from 0 to 5 and 0 to 2, Anali scores are easy to calculate[5, 6]. The inter-observer reliability remains to be assessed but should be good among expert radiologists, who interpret most MRC of PSC patients.

Finally, Anali scores are predictors of clinical outcomes in PSC patients and are a promising tool to be used easily in clinical practice.

Financial support: none.

Conflicts of interest: The authors have no conflict to report.

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