Biomarker panels and regression of fibrosis in chronic viral hepatitis

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Editor

Thanks to non-invasive blood diagnosis panels of liver lesions such as FibroMax and liver elastography (transient and real-time), the entire perception of the disease has been transformed in such a way that the patient will get within 20 minutes the exact status of the illness, prognostic information and predictability of treatment response. Predetermined cutoffs of biomarkers of fibrosis and activity are used to rank the severity of liver disease from low-risk status to cirrhosis (F4.1 – not decompensated, F4.2 – varices only and F4.3 – decompensated), and to follow-up fibrosis dynamics.

Despite the efficient drugs with high rates of viral cure (SVR) in HCV chronically infected patients (CHC), and suppression in HBV chronic carriers (CHB) that lead to the improvement of long-term prognosis of patients, the non-invasive evaluation of fibrosis remains important for staging fibrosis and even cirrhosis severity and is still an independent negative predictor for the response rates to treatments. CHC patients with cirrhosis had lower response rates to second and even third generation interferon-free (DAA) containing therapy (JAMA 2014).

Sensitive biomarkers such as FibroTest are extremely useful in cured HCV patients for tracking the *remaining risk of hepatocellular*

carcinoma (HCC) estimated to be about 5% at 10 years after SVR, patients that are supposed to not regress fibrosis. The presence of two or more metabolic factors is a strong risk predictor of non-regression of fibrosis after SVR (J Hepatol 2014).

Fibrosis progression rates are higher in HIV-HCV coinfectd than in non-HIV patients, in both SVR and not treated; SVR was associated with a slower regression of fibrosis and a worrisome remaining risk of HCC, higher than in HCV monoinfected patients (J Hepatol 2014).

In CHB patients, despite effective virus suppression under NUC, the overall incidence of cirrhosis increased, with a remaining 5.8% risk of HCC at 10 years. Almost all (93%) HBV carriers that developed HCC being under efficient viral suppression *had fibrosis progression* during repeated evaluation using FibroTest (J Hepatol 2014).

Clinicians have to continue to estimate fibrosis dynamics despite viral cure (CHC) or viral control (CHB) as fibrosis can continue to progress in more than 10% of patients.

Noninvasive biomarkers demonstrated to be efficient for the screening of steatohepatitis and fibrosis in metabolic-risk subjects (i.e., diabetics, hyperlipemics, overweight) (APT 2014). Notably, an Italian screening in the GP having ultrasound steatosis identified as high as 13% prevalence of presumed severe fibrosis using FibroMax panel (Ann Hepatol 2013).

In the era when liver germs are endangered, it sounds good that the metabolic factor-oriented screening strategy (SS) seems the most sensitive selective for liver diseases, better than the alcohol-oriented and the standard HCV/HBV-oriented strategy (BMC Gastroenterology 2010).

Conflicts of interest: BioPredictive.

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