

Controlled attenuation parameter for the assessment of fatty liver in patients with type 1 diabetes mellitus: which cutoffs to choose?

Wiktor Smyk, Marcin Krawczyk

To the editor We read with great interest the paper by Grzelka-Woźniak et al¹ published recently in *Polish Archives of Internal Medicine*. The authors of this study analyzed the relationship between insulin resistance (IR) and the presence of non-alcoholic fatty liver disease (NAFLD) in individuals with type 1 diabetes mellitus (T1DM). In total, 151 adult patients with T1DM were included. Their liver steatosis and fibrosis were measured noninvasively using controlled attenuation parameter (CAP) and transient elastography, respectively. CAP values above 238 dB/m were indicative of NAFLD. Such values were found in 43% of the recruited patients, who also had lower insulin sensitivity, as compared with the individuals with CAP below 238 dB/m. Grzelka-Woźniak et al¹ concluded that NAFLD might coexist with T1DM, particularly in the setting of reduced insulin sensitivity, and recommended using indirect IR markers to assess the NAFLD risk in T1DM patients.

First of all, we would like to congratulate the authors on tackling an important topic. Indeed, fatty liver is becoming one of the most common liver conditions worldwide.² Although liver biopsy is regarded as a reliable tool for measuring liver steatosis, noninvasive methods are widely applied in the clinic. In brief, CAP is an ultrasound-based technique that measures attenuation of ultrasound waves in the liver to assess hepatic fat content. The CAP results are presented in dB/m and range from 100 to 400 dB/m. The CAP cutoff of 238 dB/m used in the current work was also adopted in a 2010 study by Sasso et al³ to detect hepatic steatosis. Nevertheless, based on the currently available data, this threshold might be considered relatively low.⁴ For example, the authors of the recent Practice Guidance of the American Association for the Study of Liver Diseases on the clinical assessment and management of NAFLD² suggested using the CAP threshold of at least 288 dB/m for detecting hepatic steatosis. We acknowledge that the CAP cutoffs have

been varying in recent years, and different values have been reported as optimal for detecting fatty liver.⁵ However, the applied CAP cutoff of 238 dB/m might result in a falsely high number of patients with liver steatosis. Hence, the authors of the current study¹ might consider reanalyzing their data using a higher CAP threshold. Furthermore, a sensitivity analysis using various CAP cutoff values for detecting hepatic steatosis could help better define the association between the measured indirect IR markers and fatty liver in patients with T1DM.

ARTICLE INFORMATION

AUTHOR NAMES AND AFFILIATIONS Wiktor Smyk, Marcin Krawczyk (WS: Department of Gastroenterology and Hepatology, Medical University of Gdansk, Gdańsk, Poland; MK: Department of Medicine II, Saarland University Medical Center, Saarland University, Homburg, Germany; Laboratory of Metabolic Liver Diseases, Centre for Preclinical Research, Medical University of Warsaw, Warsaw, Poland)

CORRESPONDENCE TO Marcin Krawczyk, MD, Department of Medicine II, Saarland University Medical Center, Saarland University, Kirrberger Str. 100, 66421 Homburg, Germany, phone: +49 6841 11615000, email: marcin.krawczyk@uks.eu

CONFLICT OF INTEREST None declared.

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HOW TO CITE Smyk W, Krawczyk M. Controlled attenuation parameter for the assessment of fatty liver in patients with type 1 diabetes mellitus: which cutoffs to choose? *Pol Arch Intern Med*. 2024; 134: 16613. doi:10.20452/pamw.16613

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