Editorial: statin use in patients with NAFLD-safety concerns, decreased awareness or both?

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Although the role of statins in reducing cardiovascular (CV) risk is well established, these medications are still under-prescribed in patients with liver disease because of the fear of side effects. Patients with NAFLD have atherogenic dyslipidemia and increased CV risk and might benefit from the pleiotropic effects of statins. The GREek Atorvastatin and Coronary heart disease Evaluation (GREACE) study was among the first to suggest that prescribing statins in patients with NAFLD is safe and might have additional benefit[1]. Since than, numerous studies have shown that statins are safe in patients with NAFLD[2], normalize liver enzymes[3] and improve histological lesions[4] through various mechanisms including activation of the nuclear receptors and transcription pathways, increased β oxidation and decrease oxidative stress, decreased TNF α and IL6 and decreased hepatocyte signaling on hepatic stellate cells[5]. Statins also prevent evolution to cirrhosis and its complications – portal hypertension[6] and hepatocellular carcinoma[7]. The beneficial effects of statins and the potential hepatotoxicity are dose related and determined by their lipophilic or hydrophilic properties.

In this issue of *Alimentary Pharmacology & Therapeutics,* Henson and al., report data about trends in statins utilization in US between 2005 and 2018 in patients with NAFLD identified through NHANES database. Less than 20% of patients were on statins in the entire cohort. This is similar with data reported in primary CV prevention in US[8] and reflects the gap between statin therapy in clinical practice and recommendations from guidelines. Among patients with NAFLD, only half of those eligible for were on statins. The proportion of patients on statins for primary prevention increased over the study period while the prescriptions for secondary prevention did not changed significantly. Safety concerns are the main reason for the suboptimal use of statins – both for healthcare providers and patients[8]. The present study confirmed that known liver disease and increased ALT were negative predictors for statins use between 2005 and 2012. Despite known liver disease no longer being negative predictor for statin use between 2013 and 2018, only 48% of eligible patients according to ACC/AHA guidelines were prescribed a statin. The insufficient awareness for NAFLD and the lack of assessment of CV risk may be another reason for the suboptimal use of statins. Several arguments support this hypothesis: (1) in patients with NAFLD statin use increased with the severity of liver damage; (2) among patients with known NAFLD, the proportion of those taking statins was much higher (59%) when prescribed for secondary prevention in patients with clinical CV events; (3) screening for CV disease is now recommended by the latest EASL guideline[9]; the AASLD guideline acknowledge that "*attention to control CV risk factors is crucial*" and that "*is reasonable to incorporate lipid-lowering therapy in patients with NAFLD*"[10].

Although further studies are required to confirm the effect of statins on liver lesions, statins should be prescribed in patients with NASH according to their metabolic profile and CV risk.

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