LETTER TO THE EDITOR

Letter to the editor: Treating nonalcoholic fatty liver disease with statins. Are all statins equal?

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IN A RECENT ISSUE of the American Journal of Physiology-Gastrointestinal and Liver Physiology, Schierwagen et al. (8) reviewed the outcomes of statins on liver and cardiovascular disease (CVD) (8). A few comments might be of interest.

In 2010, our post hoc analysis of the GREek Atorvastatin and Coronary heart-disease Evaluation (GREACE) study (n = 1,600) (3) showed that atorvastatin (average dose, 24 mg/day) for 3 yr in patients with coronary heart disease (CHD) halved CVD events in a subgroup of patients with likely nonalcoholic fatty liver disease, i.e., NAFLD, the most common liver disease (4). Three years later, the secondary prevention Initiating Dialysis Early and Late (IDEAL) study (n = 8,863) that included participants with high alanine transaminase (ALT) levels confirmed our finding for the beneficial effect both on NAFLD and CVD with high-dose atorvastatin (80 mg/day) compared with simvastatin (20 mg/day) (9).

This was also the case with the Assessing The Treatment Effect in NASH (n = 1,123), a primary prevention study, using atorvastatin (average dose, 30 mg/day) (2). These three studies are limited by being post hoc analyses and by the absence of histology, the gold standard for the diagnosis of NAFLD/nonalcoholic steatohepatitis (NASH).

A study with biopsy-proven NASH (n = 20) showed that 10 mg/day rosuvastatin eliminated histologically NASH in the repeat biopsy a year later in 19 or 20 patients (6). Another study (n = 346) with biopsy-proven NAFLD reported that statins ameliorate NAFLD/NASH (7). There is also a study reporting benefits after administration of pitavastatin in a specific patient group (5). Other studies supporting a benefit were mentioned by Schierwagen et al. (1).

Overall, the beneficial effect of statins on NAFLD/NASH may be statin dose related; some statins may be more effective (e.g., atorvastatin and rosuvastatin); and in addition to improved liver pathology, the high CVD event rate in these patients at high risk may decrease substantially (3). These factors need to be established/refuted by appropriately designed trials to help treatment choices for those with NAFLD/NASH. These are highly prevalent and harmful diseases where more patients will die from a vascular death than from a hepatic death (3). Some of these concepts are considered in a recent expert panel statement (1).

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