Response to ‘Treatment with statins may be considered in ESRD patients for primary prevention of cardiovascular disease’


Considering the clinical benefits of statins for primary and secondary cardiovascular event prevention in normal renal function patients, one can assume a similar benefit for patients with chronic kidney disease. Accordingly, Manca-di-Villahermosa’s letter1 reports that a small group of end-stage renal disease patients receiving atorvastatin show low cardiovascular mortality after 3 years of follow-up. However, in the 4-D study—the only randomized placebo-controlled statin trial done to date, which included 1255 patients with type 2 diabetes undergoing hemodialysis—atorvastatin administration was not associated with cardiovascular mortality reduction, which accounts for half the deaths in such patients.2 Moreover, this occurs independently of the presence or absence of high c-reactive protein levels that are associated with cardiovascular event risk.3 Reasons for this discrepancy are not evident, as statins exert anti-inflammatory, antioxidant, and lipid-lowering effects as effective as those observed in normal renal function participants. End-stage renal disease patients are at high risk for cardiovascular complications, in whom cardiovascular disease is considered complex and aggravated by coexisting factors, including malnutrition, accelerated atherosclerosis, left ventricular hypertrophy, cardiac fibrosis, and sympathetic overactivity. In the 4-D study, most of cardiovascular deaths were caused by sudden death and not by coronary heart disease.2 Data for two ongoing large trials (AURORA and SHARP) would help put into perspective statin’s beneficial effect in chronic kidney disease with respect to cardiovascular mortality. Apart from this, it has been reported that statin use is associated with sepsis incidence reduction—a major cause of morbimortality in chronic kidney disease.4 This protective benefit could contribute to total mortality reduction in peritoneal dialysis and hemodialysis patients using statins reported by some observational studies (e.g., DOPPS).5


