AORTIC STENOSIS— THERAPIES NEEDED

The results of the ASTRONOMER trial show that lowering cholesterol with rosuvastatin does not reduce progression of aortic stenosis. Kwan Leung Chan—from the University of Ottawa Heart Institute, Canada—and colleagues suggest that statin therapy should not be used solely for reducing the progression of aortic stenosis.

Aortic stenosis can cause substantial morbidity and mortality, with patients often requiring valve replacement. Development of this condition involves multiple events, including inflammation, fibrosis, calcification, and lipid deposition and oxidation. Existing evidence links hypercholesterolemia with aortic stenosis, and some retrospective studies have shown that statin use is associated with a slower progression of aortic stenosis.

Chan *et al.* enrolled 269 patients from centers across Canada in a double-blind, randomized, placebo-controlled trial to assess whether lipid reduction with rosuvastatin (40 mg per day) affected disease progression in asymptomatic patients with mild to moderate aortic stenosis.

The investigators found that the peak increase in the stenosis gradient was comparable—about 6 mmHg per year—in both the treatment and control groups. Rosuvastatin treatment did not affect disease progression in patients with aortic stenosis, which replicates earlier results from SALTIRE and the SEAS trial.

The researchers highlight that “newer therapeutic strategies besides cholesterol lowering should be explored” for patients with aortic stenosis. “The cellular and molecular events resulting in calcific aortic valve disease are complex,” comments Catherine Otto from the University of Washington, Seattle, USA “basic science studies are needed to clarify pathways unique to tissue calcification that may be amenable to medical therapy.”

Katrina Ray

Original article Chan, K. L. *et al.* Effect of lipid lowering with rosuvastatin on progression of aortic stenosis: results of the aortic stenosis progression observation: measuring the effects of rosuvastatin (ASTRONOMER) trial. *Circulation* 121, 306–314 (2010)