Association of Statin Adherence With Mortality in ASCVD

Statin adherence remains suboptimal in patients with atherosclerotic cardiovascular disease (ASCVD). Rodriguez and coauthors examined the association of statin adherence with mortality in patients with ASCVD receiving stable statin prescriptions within the Veterans Affairs Health System between January 2013 and April 2014, with a mean follow-up of 2.9 years. Adherence was higher in patients taking moderate-intensity statins compared with high-intensity statins. Women, minorities, adults younger than 65 years, and adults 75 years and older had lower adherence rates. Compared with the most adherent patients with a medication possession ratio (MPR) of 90% or greater, the adjusted hazard ratio was 1.30 in those with an MPR less than 50%, 1.21 in those with an MPR of 50% to 69%, and 1.08 in those with an MPR of 70% to 89%.

Association of Genetics With Arrhythmia in Long QT Syndrome

Long QT syndrome (LQTS) is caused by several ion channel genes. To examine the association of sex and the LQTS-related pathogenic variant with risk of life-threatening arrhythmias, Shimizu and coauthors enrolled 1124 genotype-positive patients from 11 Japanese institutions from 2006 to 2013. No sex difference was observed in risk of arrhythmic events among those younger than 15 years; in contrast, female sex was associated with higher risk for LQTS type 1 and type 2 among those older than 15 years with several site-specific pathologic variants. No sex difference was observed in LQTS type 3. Zareba notes in an Invited Commentary that further studies of expression and penetrance of LQTS in racially diverse populations may help in personalizing risk stratification tailored to a specific race/ethnicity.

Prognostic Value of Vasodilator Stress CMR

Stress cardiac magnetic resonance imaging (CMR) is an established diagnostic test for coronary artery disease (CAD) but is not widely used in current practice. To determine whether results of stress CMR are associated with patient mortality, Heitner and coauthors evaluated outcomes of 9151 patients with known or suspected CAD undergoing vasodilator stress CMR at 7 US hospitals, with a median follow-up of 5.0 years. In adjusted analyses, stress CMR improved prediction of mortality when added to established risk models and improved risk reclassification for patients with and without known CAD and with normal and abnormal left ventricular ejection fraction.

Baseline Characteristics of Participants in the ISCHEMIA Study

The International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA) trial is designed to address whether cardiac catheterization and revascularization, when added to optimal medical therapy, improve prognosis in patients with stable ischemic heart disease at increased risk because of moderate or severe ischemia. Hochman and coauthors describe baseline characteristics of the 5179 randomized participants in the ISCHEMIA trial and examine whether qualification by stress imaging or nonimaging exercise tolerance test influenced risk profiles. In an accompanying Editorial, Gibbons addresses the current challenges of identifying patients with moderate-severe ischemia to test the original hypothesis but states that, given the size and excellent baseline optimal medical therapy of the ISCHEMIA trial, the trial should establish a new standard for treatment of patients with stable ischemic heart disease.