

compared with placebo (3.9/2.6 mm Hg). However, ACTIVE-I failed to reach either of its two primary endpoints. The composite endpoint of stroke, MI, and vascular death occurred with equal frequency in the irbesartan and placebo groups (HR, 0.99;  $p=0.85$ ), and a similar proportion reached the composite co-primary endpoint of the above plus HF hospitalization (HR, 0.94;  $p=0.12$ ). Only one component of the primary endpoint, HF hospitalization, occurred less frequently in the irbesartan group (HR, 0.86;  $p=0.018$ ).

Compared with placebo, irbesartan was associated with a similar frequency of total strokes (2.3% vs 2.1%;  $p=0.21$ ) but fewer hemorrhagic strokes (0.2% vs 0.4%;  $p=0.010$ ). Irbesartan also reduced the composite endpoint of stroke, transient ischemic attacks, and noncentral nervous system embolism (HR, 0.87;  $p=0.024$ ). In particular, the reduction of recurrent embolic events in the irbesartan group (39.6% vs 44.3%;  $p=0.016$ ) contributed to significantly fewer CV hospitalizations (3817 vs 4509 admissions;  $p=0.003$ ) and fewer total days of hospitalization (36,440 vs 39,971 days;  $p<0.001$ ) compared with placebo.

Findings from ACTIVE-I illustrate the limited benefit of a modest reduction in BP with irbesartan in the setting of AF, in which the prevalence of hypertension is high and HF is more common than stroke, Dr. Yusuf said. More aggressive BP lowering with multiple antihypertensive agents may result in an even greater clinical benefit, he concluded.

## GRACE Registry Study

In a study that was reported at the 2009 European Society of Cardiology Annual Meeting by Professor Gilles Montalescot, MD, Institut de Cardiologie, Hôpital Pitié-Salpêtrière, Paris, France, in-hospital death and cardiac arrest, as well as death and myocardial infarction (MI) up to 6 months following hospital discharge, were less frequent in patients with unprotected left main coronary disease (ULMCD) who presented with acute coronary syndrome (ACS) and were revascularized with coronary artery bypass grafting (CABG) compared with a group who did not undergo revascularization. Percutaneous coronary intervention (PCI) was also significantly and positively associated with improved survival over the same period, although the benefit was less than with CABG.

This study analyzed 6-month posthospital discharge data from the Global Registry of Acute Coronary Events (GRACE) registry for 1799 high-risk patients (eg, age >75 years [40%], prior MI [26%], prior STEMI [35%], heart failure [23%], or prior stroke and renal insufficiency [9%]) with ACS and

ULMCD who were treated with PCI, CABG, or conservative treatment. In patients who presented with acute MI, 48% of PCI patients underwent revascularization on the day of admission versus 5.1% in the CABG group. Patients who received PCI were the more serious cases—older patients with higher GRACE scores, more frequently with STEMI or shock. Mortality was 7.7% in the hospital and 14% at 6 months, demonstrating the overall high risk of the cohort.

After adjustment, revascularization was associated with an early hazard of in-hospital death compared with no revascularization that was statistically significant for PCI (HR, 2.60; 95% CI, 1.62 to 4.18) but not for CABG (HR, 1.26; 95% CI, 0.72 to 2.22). Mortality from hospital discharge to 6 months was 10% for the conservatively treated group and 5.4% and 1.6% for patients who were revascularized with PCI and CABG, respectively. In-hospital cardiac complications (cardiac arrest, sustained ventricular tachycardia, new cardiogenic shock, rehospitalization for cardiovascular reasons, and MI) were significantly ( $p<0.001$ ) higher for PCI.

After multivariate adjustment, PCI (HR, 0.45; 95% CI, 0.23 to 0.85) and CABG (HR, 0.11; 95% CI, 0.04 to 0.28) were significantly associated with improved survival from discharge to 6 months in comparison with an initial strategy of no revascularization. However, CABG was associated with a 5-fold increase in stroke compared with PCI and no revascularization. There was no difference between the PCI and CABG groups for the triple ischemic endpoint of death, reinfarction, or stroke.

In 2000, the rate of CABG for ULMCD was 2.5-fold higher than the rate of PCI. Between 2000 and 2007 (the time period of this study), PCI had become the most common strategy of revascularization in emergent/serious cases but was associated with more frequent repeat revascularization in the 6 months after discharge. CABG was associated with good survival in lower-risk patients but resulted in more frequent incidents of acute stroke. Prof. Montalescot noted that while PCI is the most commonly used strategy in this population, “PCI and CABG appear complementary, and both types of revascularization improve 6-month survival in comparison with an initially conservative medical strategy for this rare but serious situation.”

## Primary PCI Versus Fibrinolysis in Very Elderly Patients with AMI

Primary percutaneous coronary intervention (PCI) was not found to provide an advantage over fibrinolytic therapy for very elderly patients with acute myocardial infarction