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-Salpétrière, 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

(AMI), according to findings from the Tratamiento del Infarto Agudo de Miocardio en Ancianos (TRIANA) trial (NCT00257309), which was halted early due to slow enrollment. Although TRIANA failed to meet its primary endpoint, it did show favorable (albeit nonsignificant) trends with an invasive strategy in this relatively unstudied group with a relatively small sample size.

PCI is the preferred therapy for ST-segment elevation MI (STEMI); yet the majority of very elderly patients (aged ≥75 years) with STEMI is treated with fibrinolytic therapy or no reperfusion therapy. Many physicians may be reluctant to use any reperfusion strategy in the elderly, given the sparse evidence that supports primary PCI and the fear of increased bleeding risk with fibrinolytic therapy in very elderly patients, said Professor Héctor Bueno, MD, PhD, Hospital General Universitario Gregorio Marañón, Madrid, Spain. Dr. Bueno presented results of the TRIANA trial, which was designed to compare the efficacy and safety of primary PCI and fibrinolytic therapy in patients aged ≥75 years.

TRIANA included patients aged ≥75 years (mean age, 81 years) who presented within 6 hours of symptom onset with STEMI and without contraindications for fibrinolysis at centers that offered primary angioplasty in Spain. Patients were randomly assigned to fibrinolytic therapy that consisted of weight-adjusted tenecteplase, unfractionated heparin, and clopidogrel (n=134) or primary angioplasty with clopidogrel and, at the physician's discretion, abciximab (n=132). The primary endpoint was the cumulative incidence of all-cause death, reinfarction, or disabling stroke at 30 days. Initially, the study was powered to detect a 40% relative risk reduction in the primary endpoint, based on a sample size of 560 patients. However, TRIANA was discontinued early due to slow recruitment after enrolling only 266 patients.

At 30 days, there were numerically fewer (but statistically not significant) primary endpoint events in the primary PCI group (18.9%) than in the fibrinolytic therapy group (25.4%; OR, 1.46; p=0.21). Each component of the primary endpoint tended to occur less frequently with PCI, including death (13.6% vs 17.2%; p=0.43), reinfarction (5.3% vs 8.2%; p=0.35), and disabling stroke (0.8% vs 3.0%; p=0.18). At 12 months, results for the primary endpoint again showed no statistically significant difference between treatment groups (27.3% vs 32.1%; p=0.31)

Among secondary outcomes, primary PCI significantly reduced the risk of recurrent ischemia compared with fibrinolysis (0.8% vs 9.7%; p<0.001). No differences were found between the primary PCI and fibrinolytic therapy groups in a range of safety outcomes, including major bleeding (3.8% vs 4.5%; p=0.78), need for transfusion (5.3% vs 3.0%; p=0.35), and renal failure (6.1% vs 7.5%; p=0.64).

Although TRIANA lacked the statistical power to demonstrate the superiority of PCI over fibrinolytic therapy, the observed risk reduction was consistent with the benefit that had been anticipated with primary PCI in the initial design of the study. Primary angioplasty should be considered the treatment of choice even in very old patients with STEMI. In situations in which primary PCI is not available, safety findings from TRIANA indicate that fibrinolysis may be considered as an alternative, with an acceptable rate of intracerebral hemorrhage among old patients who are carefully selected for fibrinolytic therapy.

Results from the AAA Study

Results from the Aspirin for Asymptomatic Atherosclerosis (AAA) study, presented by Professor Gerry Fowkes, MD, University of Edinburgh, Edinburgh, Scotland, showed no support for the routine use of aspirin for the primary prevention of vascular events in people with asymptomatic atherosclerosis.

The objective of the AAA study was to evaluate whether the routine use of low-dose (100 mg) aspirin was as effective as primary prevention of vascular events in individuals at high risk of a future event, as determined by ankle brachial index (ABI) score. The primary endpoint was a composite of initial fatal or nonfatal coronary event or stroke or revascularization. Secondary endpoints were all initial vascular events (defined as a composite of a primary endpoint event or angina, intermittent claudication, or transient ischemic attack) and all-cause mortality.

The study population consisted of 3350 men and women who were recruited from general practice registers in Scotland who had a low (≤0.95) ABI score, were free of cardiovascular disease, and were not already taking routine aspirin or warfarin. Subjects were randomly assigned to receive 100 mg enteric-coated aspirin (n=1675) or matching placebo (n=1675) and were followed for a mean of 8.2 years. The mean ABI at study entry was 0.86; mean age was 62 years, and 29% was male.

There was no difference between treatment groups for either the primary or secondary endpoints (Table 1). There was, however, an increase in major hemorrhages that required hospitalization in the aspirin group (2% of subjects in the aspirin group vs 1.2% of subjects in the placebo group; HR,1.71; 95% CI, 0.99 to 2.97). Gastrointestinal ulcers were also more frequent in subjects