

Baseline characteristics, including age, BMI range, metabolic syndrome risk factors, coronary artery disease, and sleep apnea incidence, were similar across the groups. Annual follow-up determined changes in weight.

A dose-dependent relationship between weight loss and risk factors for the metabolic syndrome was found. Stepwise reductions in AF frequency, severity, and duration were found, along with stepwise increases in global well-being scores. This was most marked in group 1, in which nearly half of patients had freedom from AF without medications or ablation (Figure 1). Total arrhythmia-free survival was 86% in group 1, 66% in group 2, and 40% in group 3 ( $P < .001$ ).

According to the multivariate analysis, a greater weight loss was associated with greater AF-free survival, while greater fluctuations in weight were associated with AF recurrence (Figure 2).

In regard to structural remodeling, there were greater reductions in left atrial volume and LV thickness as compared with baseline with more weight loss.

The LEGACY trial showed that sustained weight loss in obese patients appeared to improve AF burden and heart rhythm control, although weight fluctuations of  $>5\%$  reduced this benefit. The study also showed that a dedicated weight loss clinic improved patient engagement, promoted treatment adherence, and prevented regaining weight and weight fluctuations.

## After Eighty Study: Invasive Intervention Superior to Conservative Management

Written by Eleanor Mayfield

Early invasive intervention after medical stabilization following NSTEMI or unstable angina pectoris (UAP) was superior to conservative management in participants aged  $\geq 80$  years in the After Eighty Study [NCT01255540]. The results were reported by Nicolai Tegn, MD, Rikshospitalet Oslo University Hospital, Oslo, Norway.

Patients aged  $\geq 75$  years represent approximately a third of all patients with NSTEMI and UAP [Jokhadar M, Wenger NK. *Clin Interv Aging*. 2009]. However, this population is underrepresented in clinical trials; only 1 previous randomized trial, the Italian Elderly ACS Study [Savonitto S et al. *JACC Cardiovasc Interv*. 2012], has been conducted exclusively in this age group. The role of invasive management in patients aged  $\geq 80$  years following NSTEMI or UAP is a matter of debate, Prof Tegn said.

Of 4187 patients who were screened, 457 patients (mean age 85 years), who were medically stabilized after presenting with a syndrome consistent with NSTEMI/UAP, were enrolled in the After Eighty Study, an open-label randomized trial, conducted at 17 centers in Norway between 2010 and 2014. The primary reasons for the exclusion from the study were short life expectancy ( $< 1$  year), inability to comply with study protocol, refusal to participate, and clinical instability. Participants in the invasively treated group ( $n=229$ ) were 45% women; in the conservatively treated group ( $n=228$ ), 56% of participants were women.

Baseline medical history and risk factors were similar between the 2 groups. In both groups,  $>90\%$  of participants had troponin elevation, 97% were receiving aspirin 75 mg, and  $>80\%$  were receiving platelet inhibitors,  $\beta$ -blockers, and statins. The study's primary end point was a composite of myocardial infarction (MI), need for urgent revascularization, stroke, and death.

Among participants in the invasively treated group, angiography revealed stenosis in  $\geq 1$  vessel in 74% ( $n=165$ ); 49% ( $n=107$ ) underwent percutaneous coronary intervention and 3% ( $n=6$ ) underwent coronary artery bypass grafting. In 90% ( $n=198$ ) of participants who underwent revascularization, radial access was used. Participants in both groups received optimal medical treatment.

After a median follow-up of 1.5 years, 41% ( $n=93$ ) of invasively treated participants met the composite primary end point, compared with 61% ( $n=140$ ) of those treated conservatively (rate ratio [RR], 0.48; 95% CI, 0.37 to 0.63;  $P < .00001$ ).

MI occurred in 17% of invasively treated participants ( $n=39$ ) vs 30% ( $n=69$ ) of those treated conservatively (RR, 0.5;  $P < .0003$ ). Urgent revascularization was required in 2% ( $n=5$ ) of invasively treated participants vs 11% ( $n=24$ ) of those treated conservatively (RR, 0.19;  $P = .0001$ ). The composite of death plus MI occurred in 35% ( $n=81$ ) of invasively treated participants vs 48% ( $n=109$ ) of those treated conservatively (RR, 0.54;  $P < .0001$ ). The 2 groups did not differ significantly in rates of stroke ( $P = .26$ ), death from any cause ( $P = .53$ ), or bleeding complications (no  $P$  values reported).

In summary, in a highly selected randomized cohort with a mean age of 85 years, an early invasive treatment strategy after medical stabilization following NSTEMI or UAP had statistically significantly superior results compared with a conservative management strategy, with no increase in bleeding complications. The radial approach was used in 90% of the study patients.