was associated with increased mortality only among Ht patients with LVEF <40%.
Deaths due to arrhythmias and worsening HF contribute to the substantial mortality of
patients with LVEF<40% and may be targets for future interventions in this population.

**ORAL CONTRIBUTIONS**

887FO Featured Oral Session...Risk Factors for Adverse Outcomes in the Elderly

Wednesday, April 02, 2003, 10:30 a.m.-Noon
McCookmerk Place, Room S402

11:45 a.m.

887FO-2 The Modifying Effect of Age on Risk Factors for Stroke: The Manitoba Follow-Up Study
T. E. Cuddy, Robert B. Tate, Dennis J. Bayomi, T. K. Young, University of Manitoba, Winnipeg, MB, Canada

Background: The Manitoba Follow-Up Study, initiated in 1948, is a prospective investigation
of cardiovascular disease in a cohort of 3,983 men. The present investigation is the effect of age on traditional risk factors for stroke.

Methods: Over a 50 year follow-up period physical examinations including blood pressure
measurements and electrocardiograms have been recorded. Selected measurements
from examinations at 5 year age intervals between 30 and 70 years of age for
each man were related to the incidence of definite stroke and to all cerebrovascular
events (definite stroke plus transient ischemic attacks) using Cox proportional hazard models (p-value set at 0.05 for risk factors).

Results: During 163,933 person years of observation, a total of 562 men experienced
cerebrovascular events, including 316 men with definite strokes. Across ages from 30 to
70 years, significant risk ratios for definite stroke associated with a 10 mm Hg difference in
DBP ranged between 1.18 to 1.29 and between 1.26 to 1.50 for the same change in DBP.
Risk ratios for diabetes mellitus ranged between 1.81 to 3.40, between 2.24 to 3.11
for atrial fibrillation and from 10 down to 1.56 for prior evidence of IHD. The risk ratios
for SBP were greatest between age 45 and 55 years. Age-specific risk ratios were greater in
models for definite strokes than in models for all cerebrovascular events. While the effects of these traditional risk factors: blood pressure, atrial fibrillation and prior IHD
decline in magnitude with age, the effect of smoking did not significantly vary with age.

Conclusions: Recognition of the varying effect of these risk factors with age is important
in the identification of men at high risk for stroke.

887FO-3 Prediction of First Stroke in Older Men and Women Without Atrial Fibrillation or Valvular Heart Disease
Terresa S. Tsong, Marion E. Barnes, Kent R. Bailey, James B. Seward, Mayo Clinic, Rochester, MN

Background: Stroke is a major cause of disability and mortality in the elderly. Accurate
risk stratification is pivotal for containment of this major public health problem.

Methods: The study included residents of Olmsted County, Minnesota, who underwent
echocardiography between 1990-96 and at the time were >65 years of age, in sinus
rhythm, without valvular or congenital heart disease, prior stroke or atrial fibrillation. Clin-
ical and echocardiographic characteristics were retrieved from medical records. Left
aortic volume, indexed to body surface area (LAVI) was measured offline. Multivariate
Cox proportional hazards models for prediction of stroke were developed. The relative
hazards associated with successively higher quartiles of age-adjusted left atrial dimen-
sion (LAD) and LAVI were determined with Cox proportional hazards modeling, starting with a "saturated model" and an assumption that a change in risk occurred with each
quartile increment. The least significant jumps were deleted in succession until all terms
were significant at p<0.05.

Results: Amongst 1459 patients (mean age 75±7 years; 38% male) who met the study
criteria, incident stroke occurred in 102 patients (7%) over mean follow-up time of 4.2 ±
3.8 years. Universal predictors of stroke were age, hypertension, heart failure, myocardial
infarction (MI), diabetes mellitus (DM), carotid artery disease, transient ischemic attack (TIA), LAVI, LAD, left ventricular (LV) wall thickness, and LV fractional shortening.