

## **Prevalence and Prognosis of Aortic Valve Disease in the Oldest Old**

**David Leibowitz<sup>1</sup>**, Jochanan Stessman<sup>2</sup>, Jeremy Jacobs<sup>2</sup>, Dan Gilon<sup>1</sup>

<sup>1</sup>*Cardiology, Hadassah Hebrew University Medical Center, Israel*

<sup>2</sup>*Geriatrics, Hadassah Hebrew University Medical center, Israel*

### **Background:**

Degenerative aortic valve disease (AVD) with calcification of the valve leaflets is a common finding in the elderly. Previous studies that have examined the prevalence of and risk factors for AVD in elderly patients included a broad range of ages with limited data in subjects over the age of 85. While in younger subjects AVD has been associated with increased mortality, the impact of AVD on mortality in this very elderly population remains unclear.

### **Methods:**

Subjects were recruited from the Jerusalem Longitudinal Cohort Study. Echocardiography was performed at home in 498 randomly selected subjects. Subjects were dichotomized into 3 groups; normals, subjects with valve calcification but without stenosis (AVC), and subjects with aortic stenosis (AS). Survival status at 5 year follow-up was assessed via the centralized Ministry of Interior database.

### **Results:**

Aortic valve calcification was noted in 55% of the study subjects while AS was seen in 8.2%. There were no significant differences between the three groups in any of the clinical parameters examined including risk factors for atherosclerotic heart disease. Of the 498 subjects, 107 (21%) had died at the time of 5-year follow-up. Five-year mortality was similar between the normal (17%) and AVC (20%) groups but was significantly higher among the subjects with AS (46%). Hazard ratio for subjects with AS was 3.7 (95% CI 1.4-9.3).

### **Conclusions:**

Our study utilizing home echocardiography demonstrates in a community-based population of the oldest old that the prevalence of AS is higher than previously reported, that AV disease in the very elderly does not appear associated with traditional vascular risk factors and that AS but not AVC alone is independently predictive of 5-year mortality.