Men at Higher Risk of Sudden Cardiac Death

BY BRUCE JANCIN

ORLANDO — A 40-year-old man faces a one-in-eight lifetime risk of sudden cardiac death, according to a Framingham Heart Study analysis.

As a means of placing that risk in context, it's useful to consider the competing risks posed by other diseases for which lifetime risk estimates at age 40 are available. For example, a 40-year-old man faces a 1-in-16 lifetime risk of colon cancer, a 1-in-12 risk of lung cancer, a 1-in-6 risk of prostate cancer, and a 1-in-20 risk of hip fracture, Dr. Donald M. Lloyd-Jones noted at the annual scientific sessions of the American Heart Association.

These other diseases receive much more public and physician attention and research funding than does sudden cardiac death (SCD). For instance, a comprehensive national screening strategy exists for colon cancer, even though a 40-year-old man's lifetime risk of the malignancy is only about half that of SCD, said Dr. Lloyd-Jones, chairman of the department of preventive medicine at Northwestern University, Chicago.

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DR. LLOYD-JONES

An estimated 300,000 Americans per year experience SCD. The tools to devise a screening strategy for SCD risk are now available. Genetic tests can identify many individuals with an inherited predisposition. Echocardiography can show predisposing structural abnormalities. And effective preventive interventions exist in the form of risk-factor modification and implantable cardioverter defibrillators, he continued.

Dr. Lloyd-Jones presented data from the ongoing Cardiovascular Lifetime Risk Pooling Project, a National Heart, Lung, and Blood Institute–sponsored effort that draws on data from 17 large studies.

The rationale for the project is straightforward: "Today many treatment decisions are based upon the estimated cardiovascular event risk during the next 10 years, but often what patients and physicians really want to know is what's the risk of having a cardiovascular event over their remaining life span," he explained.

In developing lifetime SCD risk estimates for selected ages, Dr. Lloyd-Jones and his coinvestigators relied on the data sets from three studies with adjudicated SCDs: Framingham, the Atherosclerosis Risk in Communities (ARIC) Study, and the Cardiovascular Health Study.

In Framingham, a 40-year-old man's lifetime risk of SCD through age 95 after taking into account competing causes of mortality, including other diseases and traffic accidents, was 12.3%, while a 40-year-old woman's lifetime risk was 4.2%. Of note, in the men, SCDs were skewed toward occurrence at a much younger age. Indeed, fully one-third of all SCDs in store through age 95 for the 40-year-old male population will occur before the age of 60. Although Dr. Lloyd-Jones presented illustrative data from Framingham, he stressed that the findings in ARIC and the Cardiovascular Health Study were similar.

A clear message emerging from the lifetime risk estimation project is that public health programs aimed at preventing SCD ought to focus on the traditional cardiovascular risk factors. In Framingham, a 50-year-old man or woman with optimal control of risk factors had an estimated 0% lifetime risk for SCD. This risk climbed stepwise with each risk factor in suboptimal or poor control to a maximum lifetime risk of 13.7% in men and 4.3% in women with two or more major elevated risk factors at age 50.

The lifetime risk analysis also highlighted racial differences, which were restricted to men, with black men having a roughly threefold greater lifetime risk of SCD than white men.

"There's clearly a greater burden of risk factors in African American men that go undetected and untreated," Dr. Lloyd-Jones said. ■