Studying Populations and Heart Disease Risk

Women and men; whites, Hispanics, and blacks; children and adults; diabetic; hypertensive; obese; hyperactive; previous heart attack; and high risk or low risk are all categories into which people can be grouped when heart disease is being evaluated. These differences affect an individual’s risk of heart disease, how it is diagnosed, and what is done to reduce risks and to treat the heart disease when it is diagnosed. Many of these issues were the focus of sessions at the recent 71st Scientific Sessions of the American Heart Association in Dallas, Tex.

One of the first population studies dispelled popular myths about Hispanic Americans and their supposedly lower risk for heart disease and related death. Dr Dilip K. Pandey, assistant professor at the University of Texas School of Public Health in Houston, found just the opposite: that Hispanic Americans are more likely to be hospitalized and die of a heart attack than their non-Hispanic counterparts. The study evaluated heart attack deaths in 1189 people aged 25 to 74 years between the years 1990 and 1994 in Corpus Christi, Tex. Although the differences between Hispanic and non-Hispanic men were not statistically significant, the numbers were surprising, said Pandey. Non-Hispanic men died of heart attacks at a rate of 205 deaths per 100 000 population, whereas Hispanic men died at a rate of 227 deaths per 100 000. But the differences in women were both startling and statistically significant. Hispanic women died at a rate of 102 heart attacks deaths per 100 000 population compared with 77 heart attacks deaths per 100 000 population in non-Hispanic females, he said.

Similarly, Dr Mauricio D. Cohen of Duke University Medical Center in Durham, NC, directed 2 large studies that found that Hispanics got to the hospital later and were less likely to undergo high-tech treatments than their non-Hispanic counterparts.

Children diagnosed with various forms of hyperactivity and attention deficit disorder also came under scrutiny with the preparation of a scientific statement on cardiovascular monitoring for such youngsters who are taking psychotropic drugs. In particular, concern had been raised about Ritalin, a popular drug used for hyperactivity, said Howard Gutgesell, MD, who headed the committee that issued the statement.

The committee found that stimulants such as amphetamines and methylphenidate (Ritalin) cause slight increases in heart rate and blood pressure, but that these are clinically insignificant. Tricyclic antidepressants such as imipramine and desipramine have been associated with at least 7 deaths in young patients, Gutgesell said. However, the mechanism of the death has not been determined.

Gutgesell said that before psychotropic drugs are prescribed, the physician should get a clear medical history, asking if there is a history of sudden death in the family or if the patient has suffered from palpitations or fainting. If any of these conditions exist, the committee suggested that the child be evaluated by a pediatric cardiologist before the psychotropic drug is prescribed.

A review of other medicines (including over-the-counter drugs) that the patient may be taking is also important to rule out drug-drug interactions. “For a small number of drugs, it is prudent to get an ECG,” he said. Those drugs include the tricyclic antidepressants or antipsychotic medications used to treat psychiatric disorders. Once the patient has reached a steady state of treatment, the physician should request another ECG, he said. In particular, the scientific statement suggests no additional monitoring for Ritalin.

Less clear-cut was the session on the effects of the diet pills popularly known as Fen/Phen and Redux on the cardiovascular health of the obese people who took them. The pills were hastily withdrawn from the market last year when reports of valvular heart disease surfaced in the New England Journal of Medicine and other professional communications. Studies presented at the AHA’s sessions in Dallas varied widely, with physicians and researchers reporting from 0 to 29% of patients with valvular disease in their studies.

“There is great discordance,” said Robert Bonow, MD, chief of the division of cardiology at Northwestern University of Medicine in Chicago, Ill. Bonow headed an American College of Cardiology/AHA committee that drafted treatment guidelines for all forms of heart valve disease and devoted 2 pages to the new disorder arising from use of the diet drugs.2

“We really don’t know why there is such discordance,” he said. He said the differences could result from referral bias or, more simply, differences in interpretations of echocardiograms. “I personally find it mysterious,” said Bonow.

The committee was in the process of formulating guidelines for the treatment of people with heart valve problems when the problems with fenfluramine (often taken with phentermine) and dexfenfluramine arose. At that point, said Bonow, it decided to include the examination of patients who had taken these drugs and might be at risk for heart valve difficulties.

The committee recommended a stethoscope examination for people without symptoms, with a follow-up examination in 6 to 8 months if no problems were found at the initial visit. Those who have symptoms or heart murmurs should undergo echocardiography. Because heart murmur is difficult to detect in some people because of body size, the committee recommended that they undergo echocardiography before dental

(Circulation. 1999;99:598-599.)
© 1999 American Heart Association, Inc.
Circulation is available at http://www.circulationaha.org

598
procedures to determine if they should take precautions against bacterial endocarditis. Bonow said that whether patients who had no clinical symptoms should undergo echocardiography remains an issue of clinical judgment for the physician. In some cases, patient have no symptoms but do have aortic or mitral regurgitation. Some of those patients may require surgery to repair their defective valves, the committee said.

A large study indicated that black women face a 4 times higher risk of dying of heart disease or stroke before the age of 60 than do their white counterparts, said Lora Mosca, MD, PhD, director of preventive cardiology research and education at the University of Michigan at Ann Arbor. The study pooled 9 investigations that included 16,018 white women, 3,655 black women, 1,219 Hispanic women, and 91 women of other racial or ethnic groups. Women who had blood pressures >140 mm Hg systolic and 89 mm Hg diastolic or those taking medication for the condition faced a 5 times greater risk of dying of heart disease than did women with normal blood pressure, the researchers found. Likewise, the risk for female diabetics was almost 5 times higher than that for nondiabetics. Obesity doubled a woman’s risk of early death of heart disease and stroke, as did smoking and having blood cholesterol levels in the top 20% for her age group.

The American College of Chest Physicians recommended that aspirin be considered as a method of heart attack prevention in people over the age of 50 with even 1 major heart disease risk factor, such as hypertension, high cholesterol, smoking, obesity, diabetes, physical inactivity, or a positive family history. The recommendation did not include patients for whom aspirin therapy is contraindicated. The recommendation was released first at the American College of Chest Physicians meeting in Toronto, Canada, which was held at the same time as the AHA’s Scientific Sessions. However, it was also announced during the AHA’s meeting.

Obese people face higher lifetime risks and costs from heart disease than do their slimmer counterparts, according to David Thompson, PhD, a senior economist for Policy Analysis Inc in Brookline, Mass. Not only that, but the risks increased with the more weight a person carried in relation to his or her height.

The increased risk resulted in average lifetime medical care costs as much as $6000 higher for the obese adult than for the nonobese adult. The study was based on data from the Framingham Heart Study and the Third National Health and Nutrition Examination Survey.

Ruth SoRelle
Circulation Newswriter

References
Studying Populations and Heart Disease Risk
Ruth SoRelle

Circulation. 1999;99:598-599
doi: 10.1161/01.CIR.99.5.598

Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 1999 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the
World Wide Web at:
http://circ.ahajournals.org/content/99/5/598

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published
in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial
Office. Once the online version of the published article for which permission is being requested is located,
click Request Permissions in the middle column of the Web page under Services. Further information about
this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/