Heart attacks become more common but less often fatal in women

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Heart attacks appear to have become more common in middle-aged women over the past two decades, but all women and especially those younger than 55 have recently experienced a greater increase than men in their chances of survival following such a heart event, according to two reports in the October 26 issue of *Archives of Internal Medicine*.

Middle-aged women have historically had a lower overall risk of heart events and stroke than men of a similar age, according to background information in one of the articles. However, a recent report showing higher stroke rates among women than men in a sample representative of the U.S. population appeared to reveal a new phenomenon and raised the question of whether heart disease or heart attack were also becoming more prevalent among women.

Amytis Towfighi, M.D., of the University of Southern California, Los Angeles, and colleagues analyzed data from U.S. adults age 35 to 54 who participated in the National Health and Nutrition Examination Surveys (nationally representative surveys conducted by the government) during 1988 to 1994 (4,326 participants) and 1999 to 2004 (4,075 participants). The researchers assessed how often men and women had heart attacks and also compared their Framingham coronary risk score, a measurement of heart disease risk over 10 years that includes factors such as age, cholesterol levels, blood pressure and smoking history.

In both study periods, men age 35 to 54 years had more heart attacks than women in the same age group. However, the gap narrowed in more

recent years as heart attacks decreased in prevalence among men and increased in prevalence among women (2.5 percent of men and 0.7 percent of women reported a history of heart attack in 1988-1994, whereas 2.2 percent of men and 1 percent of women did so in 1999-2004).

Between the two time periods, the average Framingham coronary risk score showed an improving trend among men but decreased among women. In male participants, total cholesterol levels remained stable, high-density lipoprotein (HDL or "good" cholesterol) levels and systolic (top number) blood pressure levels improved and smoking levels declined. The only risk factor that improved among women was HDL levels. Diabetes prevalence increased among both men and women, likely due to insulin resistance and the obesity epidemic in both sexes.

"Although men in their midlife years continue to have a higher prevalence of myocardial infarction and a higher 10-year risk of hard coronary heart disease than women of similar age, our study suggests that the risk is increasing in women, while decreasing in men," the authors write. "Therefore, intensification of efforts at screening for and treating vascular risk factors in women in their midlife years may be warranted."

In another report, Viola Vaccarino, M.D., Ph.D., of Emory University School of Medicine, Atlanta, and colleagues investigated trends in the rate of in-hospital deaths following heart attack from June 1, 1994, through Dec. 31, 2006. Data were collected from 916,380 patients through the National Registry of Myocardial Infarction.

In-hospital death rates decreased among all patients between 1994 and 2006, but decreased more markedly in women than in men. The reduced risk of death was largest in women younger than 55 years (a 52.9 percent reduction) and lowest in men of the same age (33.3 percent). The

absolute decrease in the risk of death among patients younger than 55 was three times larger in women (2.7 percent) than men (0.9 percent).

"A large part (93 percent) of this sharper decrease in mortality of younger women compared with men in recent years was because the risk status of women on admission improved compared with that of men," the authors write. "Such improvement may be due to better recognition and management of coronary heart disease and its risk factors in women before the acute myocardial infarction event, as suggested by the narrowing sex difference in previous revascularization [surgical treatment for heart disease]."

More information: *Arch Intern Med.* 2009;169[19]:1762-1766 and 1767-1774.

Source: JAMA and Archives Journals (news : web)