Women at higher risk during bypass surgery

Women have as much as a three times higher risk of dying during or shortly after coronary artery bypass surgery than men, researchers report in *Circulation: Journal of the American Heart Association.*

"The younger the patients, the greater the mortality difference between women and men," says lead author Dr. Viola Vaccarino, an associate professor of medicine at Emory University in Atlanta, Ga.

"Although the percentage of bypass surgery patients who died in the hospital was relatively small, the difference in both overall mortality and the death rate for patients under age 60 was significant between the two sexes," says Vaccarino.

Coronary artery bypass surgery uses blood vessels to reroute blood flow around arterial blockages to improve the supply of blood and oxygen to the heart. Heart surgeons perform about 571,000 of them annually, including about 182,000 in women.

Statistics

Vaccarino and her colleagues were unable to determine why death rates were different between men and women. She says the explanation might be some unknown factor that increases the risk for women who have bypass surgery, or something in the surgical procedure itself that might be subject to change.

"Clearly, we need further investigation in order to determine the causes for these mortality differences," she says.

Women who suffer heart attacks have a higher in-hospital death rate than men, and the Emory group has shown that women's mortality compared to men's is particularly high among patients younger than 60. The researchers wondered if the same pattern held true for women undergoing bypass surgery.

■ 'We initially anticipated that the higher prevalence of co-existing conditions, particularly diabetes, would be responsible for the higher rates of in-hospital complications and death in younger women.'

Dr. Viola Vaccarino
Associate professor of medicine, Emory University

The researchers reviewed records of 51,187 patients in the National Cardiovascular Network database who underwent bypass surgery at 23 medical centers between October 1993 and December 1999. Of these patients, 15,178 (or 29.7 percent) were women. A smaller percentage of women than men were white, and the women were older, an average age of 67.5 compared to 64.1 for the men.

The team divided the patients in their study into five age groups: Younger than age 50, 50-59, 60-69, 70-79, and 80 and older. Before determining the risk of death for each age group, they examined the patient's health characteristics, what other illnesses they suffered besides coronary artery disease, and their heart-disease risk factors.

Overall, 5.3 percent of the women in the study died in the hospital compared with 2.9 percent of the men. In addition, 3.4 percent of women younger than 50 died compared with 1.1 percent of men. In the 50-59 age group, 2.6 percent of the women died versus 1.1 percent of the men.

Age-related

The mortality differences between the sexes declined with older age. Among bypass patients age 80 and older, the risk of death was only slightly greater for women: 9.0 percent versus 8.3 percent for men.

After correcting for factors that might explain women's higher death rates, the risk remained quite high for younger women. Women younger than age 50 were more than twice as likely to die as men in the same age bracket. In patients ages 50-59, women had an 86 percent higher risk of in-hospital death than men.

"Women tended to have more pre-existing illnesses and risk factors in their medical history, but they had less extensive coronary atherosclerosis, and their hearts had better pump function as detected by cardiac catherization," says Vaccarino. "It seems paradoxical, but that's what the data show." In addition, a smaller percentage of women had suffered a heart attack before their bypass.

"We initially anticipated that the higher prevalence of co-existing conditions, particularly diabetes, would be responsible for the higher rates of in-hospital complications and death in younger women," she says. Diabetes was twice as common in women among patients younger than 50, and renal insufficiency was much more common in women than in men in this age group.

However, additional ailments and heart-disease risk factors accounted for less than 30 percent of the mortality differences between young men and women.

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New cancer drug gives patients renewed hop e for survival

A new intravenous drug that uses radiation for treating a typo of non-Hodgkin's lymphoma (NHL) is giving patients like Ken Norman, 70, of Troy renewed hope of living longer.

Norman was treated with Zevalin at Henry Ford Hospital as part of a national clinical trial to demonstrate the drug's safety and efficacy. Henry Ford was the only hospital in Michigan to participate in the clinical trial.

In February, the U.S. Food and Drug Administration approved Zevalin for use in treating patients with low-grade NHL who have not responded to chemotherapy. It is the first treatment approved to use radioimmunotherapy – combining localized radiation with monoclonal antibodies – to kill cancerous cells.

Zevalin works by looking for certain chemicals on certain cells. After it finds them, it attaches itself to them and delivers a dose of radiation to the malignant cells without harming surrounding healthy tissue.

Norman's cancer was in remission for nearly three years after he was treated as part of the Zevalin study in 1997. His cancer remains in remission today.

■ It is the first treatment approved to use radioimmunotherapy – combining localized radiation with monoclonal antibodies – to kill cancerous cells.

"I feel like I won the Lotto," says Norman, a retired wood model maker and avid golfer. "I'm feeling great. I personally feel (cancer) is still there, but I'm living with it no problem. I feel like I'm 20 years old."

About 53,900 Americans are expected to be diagnosed with NHL, a cancer of the lymphatic tissue, this year, according to the American Cancer Society. An estimated 24,400 will die of the disease, the fifth most common cancer in the United States, excluding nonmelanomn skin cancers.

NHL comes in three different grades: Low, intermediate and high. Low-grade is non-life threatening while high-grade is life threatening. The standard care of treatment is chemotherapy.

Dr. Nalini Janakiraman, principal investigator in the Zevalin study for Henry Ford, says Zevalin is a major development for treating patients with NHL.

"Zevalin holds promise not only as a treatment option for patients but also as a new standard of care for treating relapsed NHL," says Janakiraman. "However, because of the local radiation involved, it may not be applicable for all patients."

The treatment is done on an outpatient basis. The standard chemotherapy treatment takes six to eight months.