Breast cancer recurrence, death linked to obesity, study finds

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Aug. 28--Women who are obese or overweight at the time of diagnosis with the most common form of breast cancer face a higher rate of recurrence and a significantly higher risk of death from the disease.

Those are the key findings of a study published online Monday in the American Cancer Society journal, Cancer.

Led by Joseph Sparano of the Albert Einstein College of Medicine's Montefiore Medical Center in New York, the study also involved Nancy E. Davidson, director of the University of Pittsburgh Cancer Institute and UPMC Cancer Center, among others.

The study compared health outcomes of obese and overweight patients with large groups of women who have stage I, II and III breast cancer. All had participated in three National Cancer Institute-sponsored treatment trials.

Women with hormone receptor-positive cancer who were obese or overweight but receiving optimal chemotherapy and hormone therapy had a 30 percent higher risk of recurrence and a 50 percent higher risk of death when compared with death rates for women of normal weight who had breast cancer. No elevated rates of recurrence or death based on weight occurred in women with two other types of breast cancer, HER2 receptor-positive or Triple Negative, both of which are aggressive forms.

The researchers based findings on body mass index, a measurement of body-fat content. Those with a BMI from 25 to 29.9 are considered overweight, with obesity being 30 and higher. The U.S. Centers for Disease Control and Prevention says the average American woman 20 or older stands about 5 feet 4 inches and weighs 165 pounds. The BMI for that average height and weight is 28.3, which is well into the overweight range and approaching obesity.

The study found a stepwise relationship between increasing BMI and poor outcomes in women with hormone receptor-positive breast cancer, which accounts for about two-thirds of all breast cancer cases in the United States and worldwide.

"Treatment strategies aimed at interfering with hormonal changes and inflammation caused by obesity may help reduce the risk of recurrence," Dr. Sparano said in a news release.

The trials led by the Eastern Cooperative Oncology Group (now part of the ECOG-ACRIN Cancer Research Group) involved 6,885 women treated with standard chemotherapy for breast cancer and followed for eight years. Of those, 695 died of breast cancer, Dr. Davidson said. Patients involved in the study also were required to have normal heart, kidney, liver and bone marrow function to exclude any patient with other significant health issues. It also separated the influence of obesity from other factors affecting cancer recurrence and survival.

Dr. Davidson said the study results are important, given the increasing trend among American women to be overweight or obese.

"There's no question for breast cancer, especially involving post-menopausal women, that obesity is an important risk factor and increases the risk of getting breast cancer in the first place," she said. "The outcomes are not quite as good for women who are overweight or obese with hormone receptor-positive breast cancer, as compared with those with a normal BMI."

Reasons for the impact of weight on cancer outcomes remain hypothetical, but Dr. Davidson said fat cells in post-menopausal women who are overweight continue producing excess estrogen, the hormone that can cause breast cancer. Fat cells also generate more inflammation, while overweight women also produce more insulin, which might stimulate cancer growth.

Lifestyle improvements might serve as an important component of treatment for breast cancer along with recommended therapies,

Dr. Davidson said.

"We want patients to realize they don't have to understand every bit of this to take advantage of the knowledge. This is something you can do yourself to improve your well-being, and it's good for health. So it's important to pursue it. Survivors can take control," she said.

Jane Raymond, director of medical oncology for the West Penn Allegheny Health System, wasn't involved in the study but said the results are important.

"Losing weight can certainly improve the odds of long-term, disease-free survival and recurrence survival," she said. "The one thing that really surprised me as a breast-cancer oncologist is that the study showed improvement in overall survival. And when you talk about improving survival, that's a solid, strong endpoint for any intervention, whether it's chemotherapy or hormone therapy."

Dr. Raymond, expressing surprise that the results showed a statistical significance for survival, said people should pay attention to the study.

"People need to lose weight and get their BMI down as low as possible to improve survival," she said.

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