Mammograms Effective for High Risk in Male Breast Cancer

BY AMY GALLAGHER

Although breast cancer in men is rare, male cancer incidence is on the rise. According to the National Cancer Institute in 2018, cancer mortality is higher among men than women (196.8 per 100,000 men and 139.6 per 100,000 women). In 2019, the American Cancer Society (ACS) estimated 2,670 men will be diagnosed with breast cancer; ACS estimated 268,600 women will be diagnosed with breast cancer in 2019.

To understand the role of breast imaging in men, researchers at the New York University School of Medicine and NYU Langone Perlmutter Cancer Center conducted the largest study in the U.S. focused on men who had mammograms, according to the study’s lead researcher and author, Yiming Gao, MD, Breast Imaging Specialist.

“Our study focused on men at high risk for breast cancer who also underwent mammographic screening to determine whether screening might be effective,” explained Gao. “The data on this is sparse.”

Awareness of Cancer Mortality
Because breast imaging is not routinely performed in men, there is limited understanding as to how and to what extent breast imaging is used in men.

“Furthermore, given that male breast cancer is uncommon, generalized mammography screening is not indicated,” said Gao. “However, there are men at high risk for developing breast cancer who undergo screening on an individual basis, although little is known about how effective such screening is.

The researchers studied 1,869 men, ages 18-96, who had a mammogram at NYU Langone between 2005 and 2017.

“In the study, “mammography yielded a higher cancer detection rate as compared to that in average risk women undergoing screening mammography,” Gao noted. “Our findings show the potential of mammography in screening men at high risk for breast cancer and in detecting the disease before it has spread to other parts of the body.”

Male Breast Cancer Risk Factors
Like many cancers, the development of male breast cancer is multifactorial. However, the study focused on a few select identifiable risk factors.

“Those risk factors included personal history of breast cancer, family history of breast cancer, or breast cancer-related genetic mutations, most commonly BRCA 2 and BRCA 1,” said Gao. “Men at high risk of breast cancer often seek out testing because a female family member had the disease. In general, men need to be more aware of their risk factors for breast cancer and that they, too, can develop the disease.”

Certain races and ethnicities also predispose men to breast cancer, such as Ashkenazi descent and African American race, she said.

“Ashkenazi ancestry is linked with certain founder mutations in BRCA1/2 genes, which at least in part, predisposes to breast cancer, both in men and in women,” said Gao. “More research is needed to provide more detailed evidence-based recommendations for the appropriate age to begin screening, as well as the appropriate interval for screening men at high risk.”

Breast Cancer Survivorship in Men
Based on the current National Comprehensive Cancer Network Guidelines, annual physical breast exams only for breast cancer detection in men with BRCA mutations, starting at age 35, are recommended.

Male breast cancer tends to be diagnosed at a more advanced stage when it becomes more symptomatic, because there is no mammographic screening in men. For this reason, men with breast cancer often do not do as well as women.

“Although our study showed mammography screening may benefit select very high-risk men, more data are needed to better delineate the specific risk in male patients,” Gao said. “There is also a need for increased awareness and education about the high-risk factors in male breast cancer and why mammogram screening should be recommended.”

Male breast cancer patients may struggle with a unique set of challenges. “More awareness of male breast cancer will help improve perception and reception of such diagnoses, and optimize psychosocial support in these patients,” she noted.

The team plans to expand their analyses to include data from other cancer centers in order to better define the risk relationships among family members.

Amy Gallagher is a contributing writer.

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