

Breast Cancer— Men Get It Too

Breast cancer is a disease usually associated with women, as reflected by pink ribbons and gear, but men get it too, albeit rarely.

Because male breast cancer is rare, the Food and Drug Administration (FDA) doesn't have very good clinical trial data on treatments. "We tend to treat men the same way we treat women," says Tatiana M. Prowell, MD, a medical oncologist and breast cancer scientific lead at FDA's Office of Hematology & Oncology Products.

"Men have historically been excluded from breast cancer trials," she adds. "We are actively encouraging drug companies to include men in all breast cancer trials unless there is a valid scientific reason not to. The number of men in breast cancer trials will still be small because male breast cancer is a rare condition, but any information to help men facing this disease is better than none."

Men vs. Women

Each year, about 2,000 cases of male breast cancer (1% of all cases) are diagnosed in the United States, resulting in fewer than 500 deaths, according to the National Cancer Institute (www.cancer.gov). Although it can strike at any age, the disease is usually diagnosed in men 5 to 10



years older than in women and is found most often among men ages 60 to 70.

Prowell says one reason for the late-age (and later stage) diagnosis may be that men don't think of themselves as being at risk of breast cancer. "You'd think that because men have smaller breasts they would notice a lump instantly," Prowell says. "But men don't expect a breast lump to be cancer, whereas most women who feel a breast lump immediately assume the worst."

Most men with breast cancer have painless lumps they can feel. The

lumps can develop anywhere on the breast but often are underneath the nipple and areola complex—right in the center. Because men don't have regular mammograms, their breast cancer is usually discovered when they feel sore, such as from a fall or injury.

"Men often attribute breast lumps to some sort of injury. The mass was already there, but they didn't notice it until it got sore," Prowell says.

Men and women share some similar risk factors for breast cancer: high levels of estrogen exposure, a family history of the disease and

“Even if your grandfather is deceased, if he had breast cancer, that’s important for your health care provider to know. Because male breast cancer is so rare, seeing just one man in a family lineage raises concerns about hereditary breast cancer.”

a history of radiation to the chest. Although all men have estrogen in their bodies, obesity, cirrhosis (liver disease) and Klinefelter’s syndrome (a genetic disorder) (www.nlm.nih.gov/medlineplus/klinefelterssyndrome.html) increase estrogen levels. All are known risk factors for male breast cancer.

If a first-degree relative—their mother, father, brother, sister, children—has breast cancer, men are also at slightly higher risk to develop the disease themselves. Men who have a BRCA mutation (a mutation or change in a gene that predisposes them to breast cancer) are at a greater risk. While their chance of developing breast cancer is still low (only about 5% to 6%), men with a mutation in BRCA2 have a 100-fold greater risk of developing breast cancer than men in the general population.

“In men and women, having a tumor with estrogen and progesterone hormone receptors is more common than not—but that appears to be even more true in men,” Prowell adds.

Treating Male Breast Cancer

Treatment options for men are similar to women’s: mastectomy (surgery to remove the breast) (www.nlm.nih.gov/medlineplus/mastectomy.html) or in some cases lumpectomy, radiation, chemotherapy, targeted therapies and hormone therapy.

“Our data on treatments for men are largely based from trials that were conducted in women, or they are retrospective data from a collection of men who were treated over a period of time. We don’t have large random-

ized trials or high-level evidence for treatment of breast cancer in men as we do for women,” Prowell says.

Hormonal drug treatments include tamoxifen, a selective estrogen receptor modulator (SERM) that inhibits estrogen receptors, and aromatase inhibitors, which block the production of estrogen from androgens such as testosterone.

“For postmenopausal women, we preferentially use aromatase inhibitors as first-line treatment for early stage breast cancer, and regard tamoxifen as an alternative. It’s the opposite for men because what data we have suggest that aromatase inhibitors don’t work as well in men. So for men, aromatase inhibitors are usually an alternative or second-line treatment, after tamoxifen,” Prowell says.

For men with larger tumors, positive lymph nodes or cancer that has spread, chemotherapy is often recommended in addition to hormonal treatment, just as it is for women. And men with tumors that are HER2-positive are recommended to receive treatment with trastuzumab, an antibody that targets HER2, just as women are.

Genetic Counseling Is a Must

All men with breast cancer should be referred for genetic counseling, Prowell advises.

That’s another difference from women, who are not automatically referred to a genetic counselor for genetic testing, such as for mutations in BRCA-1 or 2. These “tumor suppressor genes” allow breast and other types of cancer to develop when

they fail to function normally. Only women with a significant family history or certain other characteristics, such as being young or having triple-negative breast cancer (which don’t have estrogen, progesterone or HER2 receptors), are recommended to have genetic testing.

Even among men there are differences. African American men are more likely than white men to have advanced stage tumors at diagnosis and to develop triple-negative cancers. Their types of tumors are more likely to recur and have fewer treatment options.

People should tell their health care provider if any man in their family has had breast cancer. Prowell says. “Even if your grandfather is deceased, if he had breast cancer, that’s important for your health care provider to know. Because male breast cancer is so rare, seeing just one man in a family lineage raises concerns about hereditary breast cancer.” 

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