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The full report is titled “Breast Cancer in Men.” It is in the 15 October 2002 issue of *Annals of Internal Medicine* (volume 137, pages 678-687). The authors are SH Giordano, AU Buzdar, and GN Hortobagyi.

Breast Cancer in Men

What is the problem and what is known about it so far?

Men can get breast cancer, but it is much less common in men than in women. Because breast cancer in men is rare, we know little about the factors that make men susceptible to the disease and how to treat it.

Why did the authors do this review?

The authors published a review of breast cancer in men in 1992. The purpose of the current review is to see whether material published in the past 10 years helps us reach new conclusions about breast cancer in men.

How did the authors do this review?

The authors searched computerized databases of medical articles on breast cancer in men that were published between 1942 and 2000. They focused on information published since 1990.

What did the authors find?

About 1500 cases of breast cancer and 400 breast cancer deaths occur in men each year in the United States. Men with a history of testicular or breast disease, a family history of breast cancer in women, or Jewish ancestry have a higher-than-average risk for developing breast cancer. Men with a genetic condition called Klinefelter syndrome have a much higher risk for breast cancer than do men without this condition. Abnormalities in the *BRCA2* gene, which greatly increase the risk for breast cancer in women, seem to also increase the risk in men. In contrast, abnormalities in the *BRCA1* gene, another gene related to breast cancer in women, do not seem to be associated with breast cancer in men. Breast enlargement in men (gynecomastia) does not seem to be a risk factor for breast cancer. In general, men develop the same kinds of breast cancer as do women. However, breast cancer in men is more likely than breast cancer in women to be hormone receptor positive. This means that the cancer cells depend on the hormones estrogen or progesterone for growth. Molecular markers of breast cancer (proteins that appear in abnormal forms or at higher levels in cancer cells) seem to be similar in women and in men. Men are more likely to have a delay between onset of symptoms and diagnosis, probably because many are unaware that breast cancer can occur in men. The existing evidence suggests that men with breast cancer should get the same treatments as do women. However, given the large proportion of hormone receptor–positive tumors in men, hormone-related treatments may prove to be particularly useful.

What are the implications of the review?

Men should be aware that they can get breast cancer. They should see a doctor promptly if they develop a breast lump, breast pain, a sore or dimpling of the nipple, or nipple discharge or bleeding. However, screening for breast cancer in men with no symptoms is not recommended because the disease is so uncommon.