

# Study provides insights on treatment and prognosis of male breast cancer

7 October 2019



Micrograph showing a lymph node invaded by ductal breast carcinoma, with extension of the tumour beyond the lymph node. Credit: Nephron/Wikipedia

A recent analysis reveals that treatment of male breast cancer has evolved over the years. In addition, certain patient-, tumor-, and treatment-related factors are linked with better survival. The findings are published early online in *CANCER*, a peer-reviewed journal of the American Cancer Society.

Male breast [cancer](#) (MBC) comprises one percent of all breast cancer cases, yet no prospective randomized clinical trials specifically focused on MBC have been successfully completed. Some studies suggest that the incidence of MBC may be rising, however, and there is an increasing appreciation that the [tumor](#) biology of MBC differs from that of female breast cancer.

To examine how MBC has been treated in the United States in recent years, and to identify factors associated with [patient prognosis](#), a team

led by Kathryn Ruddy, MD, MPH, and Siddhartha Yadav, MBBS, at Mayo Clinic in Rochester, analyzed information from the National Cancer Database on men diagnosed with stage I-III breast cancer between 2004 and 2014.

A total of 10,873 patients with MBC were included, with a median age at diagnosis of 64 years. Breast-conserving surgery was performed in 24 percent of patients, and 70 percent of patients undergoing breast conservation received radiation. Forty-four percent of patients received chemotherapy, and 62 percent of patients whose tumors expressed the [estrogen receptor](#) received anti-estrogen therapy. During the study period, there was a significant increase in the rates of total mastectomy, contralateral prophylactic mastectomy, and post-breast conservation radiation, as well as an increase in the rate of genomic testing on tumors and the use of anti-estrogen therapy. Tamoxifen is the standard anti-estrogen medication recommended for treatment of hormonally sensitive MBC, but this study was not able to assess specific medications used.

Factors associated with worse overall survival were older age, black race, multiple comorbidities, high tumor grade and stage, and undergoing total mastectomy. Residing in higher income areas; having tumors that express the progesterone receptor; and receiving chemotherapy, radiation, and anti-estrogen therapy were associated with better [overall survival](#).

"Our study highlights unique practice patterns and factors associated with prognosis in MBC, furthering our understanding of the treatment and prognosis of MBC," said Dr. Ruddy. "The racial, economic, and age-related health disparities we found could inform future efforts to target interventions to optimize outcomes in men with [breast](#) cancer."

**More information:** "Male breast cancer in the

United States: Treatment patterns and prognostic factors in the twenty-first century." Siddhartha Yadav, Dhauna Karam, Irbaz Bin Riaz, Hao Xie, Urshila Durani, Narjust Duma, Karthik V. Giridhar, Tina J. Hieken, Judy C. Boughey, Robert W. Mutter, John R. Hawse, Rafael E. Jimenez, Fergus J. Couch, Roberto A. Leon Ferre, and Kathryn J. Ruddy. *CANCER*; Published Online: October 7, 2019, [DOI: 10.1002/cncr.32472](https://doi.org/10.1002/cncr.32472)

Provided by Wiley

APA citation: Study provides insights on treatment and prognosis of male breast cancer (2019, October 7) retrieved 19 November 2019 from <https://medicalxpress.com/news/2019-10-insights-treatment-prognosis-male-breast.html>

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