

FIVE THINGS TO KNOW ABOUT ...

Breast cancer in men

Wesley D. Block MD PhD, Derek Muradali MD

More men die from breast cancer than from testicular cancer

Of the 9355 men diagnosed with breast cancer in the United States from 2004 to 2008, there were 1934 deaths, compared with 1758 deaths from 39 641 cases of testicular cancer.¹

Male breast cancer usually presents with a palpable subareolar mass

Although the most common cause of a breast mass in men is gynecomastia, 75% of cases of male breast cancer present with a palpable subareolar mass.^{2,4} Less common features include ulceration, nipple retraction or discharge, pain and axillary adenopathy.²

Men with breast cancer experience symptoms for an average of 6 months before the diagnosis is made²

Breast cancer in men presents at more advanced stages than in women, with 38% of men having axillary nodal involvement compared with 29% of women.⁵ The stage- and age-adjusted 5-year survival rates for men and women are similar, but comorbidities in older men lead to worse prognosis.⁵

Male carriers of the *BRCA2* mutation have an 80-fold increased lifetime risk of breast cancer

Although male carriers of the *BRCA2* mutation have a markedly increased risk of breast cancer, the estimated lifetime risk in the general population of men is 0.1%.² Risk factors for male breast cancer include family history, gene mutations (*BRCA2*, *BRCA1*), age, Klinefelter syndrome, chest radiation and altered testosterone–estrogen levels (e.g., due to liver cirrhosis, gonad dysfunction, estrogen use, obesity).²

Screening recommendations for men with a strong family history, genetic predisposition or history of breast cancer include monthly self-examination, semiannual clinical examination (starting at age 35) and baseline mammography (at age 40) with further annual mammography if increased breast density is seen on a baseline mammogram.³ No screening guidelines exist for men in the general population.

Palpable breast masses in men require mammography and possible biopsy

In one study, mammography had a sensitivity of 92% and specificity of 90% for male breast cancer ($n = 104$).⁶ A spiculated or irregular mass (with or without calcification) is the typical mammographic appearance. Breast ultrasonography can confirm the presence of a suspicious mass and facilitate ultrasound-guided biopsy. Biopsy is recommended for all suspicious masses.² Histology shows infiltrating ductal cancer in 90% of cases.²

References

1. US Cancer Statistics Working Group. *United States cancer statistics: 1999–2008 incidence and mortality web-based report*. Atlanta (GA): US Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2012. Available: <http://apps.nccd.cdc.gov/uscs/> (accessed 2012 Dec. 21).
2. Fentiman IS, Fourquet A, Hortobagyi GN. Male breast cancer. *Lancet* 2006;367:595-604.
3. NCCN clinical practice guidelines in oncology. Breast cancer screening and diagnosis (version 1.2012). Fort Washington (PA): National Comprehensive Cancer Network; 2012. Available: www.nccn.org/professionals/physician_gls/f_guidelines.asp (accessed 2012 Dec. 21).
4. Volpe CM, Raffetto JD, Collure DW, et al. Unilateral male breast masses: cancer risk and their evaluation and management. *Am Surg* 1999;65:250-3.
5. Giordano SH, Cohen DS, Buzdar AU, et al. Breast carcinoma in men: a population based study. *Cancer* 2004;101:51-7.
6. Evans GF, Anthony T, Turnage RH, et al. The diagnostic accuracy of mammography in the evaluation of the male breast. *Am J Surg* 2001;181:96-100.

Competing interests: None declared.

This article has been peer reviewed.

Affiliations: Department of Medical Imaging (Block), Faculty of Medicine, University of Toronto; Department of Medical Imaging (Muradali), St. Michael's Hospital, Toronto, Ont.

Correspondence to: Wesley D. Block, wesley.d.block@gmail.com

CMAJ 2013. DOI:10.1503/cmaj.122056

CMAJ invites submissions to “Five things to know about ...” Submit manuscripts online at <http://mc.manuscriptcentral.com/cmaj>