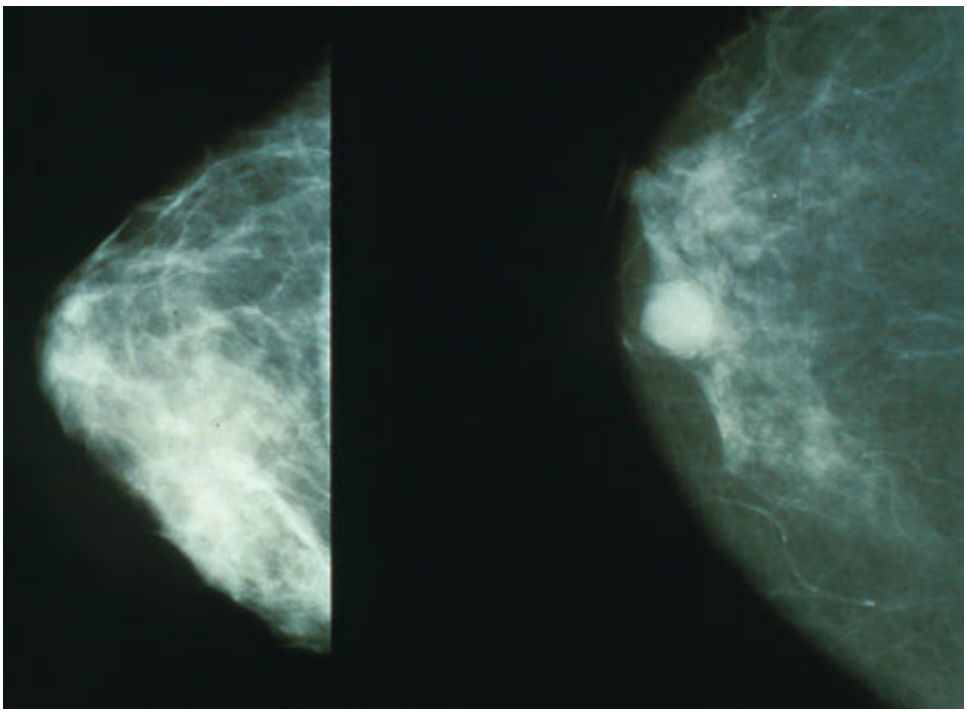
Most women with early-stage breast cancer undergo imaging for metastatic cancer despite guidelines

June 22 2015



Mammograms showing a normal breast (left) and a breast with cancer (right). Credit: Public Domain

Most women—about 86%—with early-stage breast cancer will undergo imaging to determine if the cancer has metastasized, despite international guidelines that recommend against testing, found a study in *CMAJ* (*Canadian Medical Association Journal*).

Guidelines from the American Society of Clinical Oncology, Cancer Care Ontario and the National Comprehensive Cancer Network recommend against imaging for metastatic cancer in asymptomatic women with stage I or II breast cancer, because the likelihood of metastases is low, at 0.2% and 1.2% respectively, and the chance of false-positive findings are high. Unnecessary investigation can result in harm because false-positive results can lead to more invasive tests, treatment delays and increased anxiety.

"Despite guidelines against imaging to detect radiologically evident distant metastases, our results show that this practice is very common among patients with early-stage breast cancer in Ontario," writes Dr. Mark Clemons, an oncologist at The Ottawa Hospital and the University of Ottawa, Ottawa, Ontario, with coauthors.

A study of 26 547 women in Ontario in whom stage I or stage II breast cancer was diagnosed between 2007 and 2012 found that 86% (22 811) underwent at least one imaging test to detect whether the cancer had metastasized. Imaging was performed in about 80% of women with stage I breast cancer and about 93% (11 882) in those with stage II. The average number of tests performed per patient was 3.7 in the pre- and postoperative periods. Surgeons and oncologists ordered the most tests, with surgeons ordering (74%) of preoperative tests and oncologists ordering about 41% of postoperative tests.

The researchers found that the use of advanced imaging, such as computed tomography, magnetic resonance imaging and positron emission tomography, to investigate possible metastases, has increased and now comprises 41% of all initial tests.

There was also variability in use of imaging between geographic regions in the province and between community hospitals and academic institutions.

"If guideline recommendations are to be implemented in practice, additional knowledge translation strategies are needed, as dissemination of clinical practice guidelines alone is not an effective method of changing physician practice behaviours. ... These strategies will also require patient engagement, conclude the authors.

In a related commentary, Drs. Daniel Rayson and Geoff Porter of Queen Elizabeth II Health Sciences Centre and Dalhousie University, Halifax, Nova Scotia, write, "both teams [surgical and oncological] may order tests to reassure and support the anxious, newly diagnosed patient and her loved ones—clearly laudable goals. Patients are often blindsided by a cancer diagnosis and rely on their medical team to be as certain as possible that their disease can be cured and they are not dying."

However, testing has a cascading effect, because recommendations for more confirmatory tests, increased wait times for results and possible treatment can heighten patient and family anxiety as well as increase costs and use of health care resources.

"It is the responsibility of physicians to be knowledge brokers between the evidence-based guidance and their patients. To do so effectively takes time, energy and good interdisciplinary communication. ... For most patients with newly diagnosed stage I and II breast cancer, reflexively ordering staging investigations does not help relieve stress, nor does it detect disease," state the commentary authors.

More information: *Canadian Medical Association Journal*, www.cmaj.ca/lookup/doi/10.1503/cmaj.150003

Canadian Medical Association Journal, www.cmaj.ca/lookup/doi/10.1503/cmaj.150621