Breast cancer diagnosis: What are we waiting for?

Pasteur Rasuli

The use of additional diagnostic procedures has evolved not just to confirm the diagnosis in women with breast cancer but also to prevent the large majority of women who do not have cancer from undergoing unnecessary surgery. For example, ultrasonography confirms the presence of cysts, a frequent mimic of breast cancer detected through mammography and physical examination. Spot magnification views often rule out malignant disease by demonstrating that the suspected abnormality is due to the superimposition of normal fibroglandular structures. Core biopsy provides an accurate tissue diagnosis, differentiating between benign and malignant lesions and between invasive cancer and in-situ cancer, and it enables the replacement of 2-stage surgery for invasive breast cancer (excision followed by re-excision and axillary dissection) with a single operation. The use of preoperative wire localization of microcalcifications or occult masses permits the surgeon to excise nonpalpable breast tumours with precision.

Although only a mammogram and needle biopsy may suffice to diagnose a palpable breast lump, nonpalpable lesions detected by mammography may require the full gamut of preoperative diagnostic procedures to determine whether they are malignant. These additional procedures do increase the waiting time for women found to have breast cancer, but they have the beneficial effect of freeing up scarce surgical resources by removing a large number of women with false-positive results from the surgical waiting list. Rather than bypassing the additional tests in the interest of time, it would be far preferable to expedite accurate diagnosis by streamlining them.

The development of comprehensive breast centres is an effective means of streamlining the management of patients with abnormalities detected through clinical examination or mammography by minimizing the number of visits and decreasing the overall waiting time to final diagnosis. Outside of such dedicated centres, the training of radiology technologists to perform combined mammography and breast ultrasonography would permit both examinations to be conducted by the same person at one visit and thus expedite the diagnostic assessment.

As suggested by Mayo and colleagues, a major impediment to the timely diagnosis of breast cancer is a critical shortage of surgical resources. One way around this shortage has been to move breast cancer diagnosis out of the operating room and into outpatient ultrasound and mammography biopsy suites and to replace open surgical biopsy with core biopsy, which, as noted by Olivotto and colleagues, was effective in reducing waiting times in the programs that primarily used this technique. The extension of diagnostic
core biopsy to the complete percutaneous removal of small breast tumours is underway. Some advocate that percutaneous removal of small breast tumours be combined with biopsy of the sentinel lymph node, the first intramammary lymph node draining a breast tumour, in order to avoid axillary dissection in patients who have no metastasis.

Despite these advances, the need for breast cancer surgery will continue to escalate as women born after World War II pass their 50th birthday and enter the “breast cancer years.” Health care planners take heed!

Dr. Rasuli is with the Department of Radiology, Ottawa Hospital — General Campus, Ottawa, Ont.

Competing interests: None declared.

References


Correspondence to: Dr. Pasteur Rasuli, Department of Radiology, Ottawa Hospital — General Campus, 501 Smyth Rd., Ottawa ON K1H 8L6; fax 613 737-8501; prasuli@ottawahospital.on.ca