Tony Dixon

Breast Cancer: The Debates Continue

FOR EVERY COMPLEX problem, H.L. Mencken once wrote, there is a solution that is simple, direct and wrong, and the history of medical approaches to breast cancer underlines the truth in his statement. It is a field that seems to be characterized by thinking that is both wishful and simplistic.

As long ago as 1888, A. Jackson[1] noted the lack of evidence that simple mastectomy was inferior to more radical operations, which in those days included operations to remove all the axillary nodes, clear the whole axilla, remove the supraclavicular nodes, or remove the arm at the shoulder joint, as well as total mastectomy. He thought these more radical operations unscientific and needlessy cruel, and warned against ignoring clinical experience which had shown that surgery, however radical, did not prevent recurrence of the tumour. The introduction of Halstead's operation 10 years later, in 1898, made no further impact on the survival of breast cancer patients,[2] although it remained the surgical standard for almost the next one hundred years, despite the fact that local mastectomy with irradiation was found to be preferable to radical mastectomy back in 1928.[3]

The 'simple' solution of surgery—cut everything out, and you will get rid of the tumour as well as the problem—has been found wanting, and Skrabanek[4] finds the evidence that breast cancer cannot be cured with present methods to be overwhelming. He comments that "it is surely complacent to continue our current practice of subjecting . . . women with primary disease to a futile mutilating procedure", and quotes Lowe's[5] assertion that survival is much more closely related to the intrinsic malignancy of the tumour than to early diagnosis and treatment.

An alternative solution—the early detection of breast cancer—seems to have replaced surgery as the 'holy grail' to be pursued in the 1980s, although the logic of early detection may be suspect in the absence of an intervention of demonstrated benefit. There are two screening procedures currently available, breast self-examination (BSE) and mammography. While magnetic resonance imaging provides good pictures, it is, at present, prohibitively expensive. Thermography, despite initial enthusiasm, is unreliable, and ultrasound is insensitive.[4]

BSE has been heavily promoted by health professionals and cancer societies, to such an extent that casting any doubt on its effectiveness seems sacrilegious.[6] In a recent comprehensive review of the literature, however, Frank and Mai[7] argue that women who find asymptomatic benign breast lesions by BSE are exposed to unnecessary anxiety, unnecessary medical investigations and invasive procedures, and potential risks of false reassurance. They found that false-positives so greatly outnumber patient-detected cancers below ages 30 to 35 that the potential of benefit to women in this age group is remote, and they conclude that BSE in younger women, by encouraging invasive and costly medical investigation of many asymptomatic benign breast lumps needing no treatment, may do more harm than good. They comment:

> There is no convincing evidence, as yet, of net health benefits, in terms of reduced mortality or morbidity, accruing to women of any age who practise BSE . . . Whether unequivocal evidence of BSE effectiveness can actually be produced in the current social climate of widespread BSE promotion is very doubtful. In the meantime, there are substantial risks, as well as many personal costs, for the overwhelming majority of young women who present with breast masses found by BSE, only to have unpleasant subsequent investigations reveal no pathology of significance.

What about mammography? In this issue of *Canadian Family Physician* Dr. Cornelia Baines, who is deputy director of the National Breast Screening Study, reviews the current evidence on screening mammography and its implications for practice. She concludes that the evidence to date shows women aged 50 and over to be the only ones who benefit from mammography in terms of reduced mortality. Recommendations about the screening of women aged 40 to 49 must await the results of the National Breast Screening Study due in the next few years. Dr. Baines makes the important point that it makes no sense to use mammography for screening unless the facilities and staff for such screening are "excellent". This means that mammography screening cannot just be added on to the normal clinical load of already existing radiology departments, but demands the development of a specialized free-standing service. The financial implications of such a development are considerable, and the literature contains estimates of cost as high as $195,000 per cancer detected.[8]

Dr. Baines' review of the subject is timely. This spring the American Cancer Society is launching its annual fund-raising campaign under the banner of mammographic breast screening. With the slogan "Have a mammogram. Give yourself the chance of a lifetime," the Society is recommending "baseline" mammography for women aged 35–39, routine mammograms every one to two years in the 40–49 year group, and annual mammograms for those aged 50 and over. "A mammogram", the Society's advertising announces ". . . helps your doctor 'see' breast cancer before there's a lump, when the cure rates are

near 100% . . . It's essential you have a mammogram." In a slide-tape show designed to reinforce the message that "Breast cancer has virtually nowhere to hide," the comment is made that "Mammography should be as routine as a Pap test. It's the best way to detect breast cancer at a very early, highly curable stage."

At best, such recommendations reflect well-intentioned enthusiasm that glosses over both practical and economic realities. At worst, they are a confusing mixture of half-truths, unsupported by the scientific literature to date, which can only add to the anxiety and uncertainty that always seem to cloud the rational discussion of what knowledge we do—and more especially do not—have, about breast cancer. Once again, physicians trying to provide balanced and realistic advice to their patients will find themselves battling against the flip one-line slogans beloved of some health-care institutions.

There is, at present, no simple solution to the complex challenge of breast cancer, nor is there likely to be in the forseeable future. Any answers that do come will require the sort of difficult research undertaken by Dr. Baines and her colleagues in the National Breast Screening Study. Simplistic solutions will not work, no matter how often, or how fervently, they are proposed. ◉

References

1. Jackson A. On carcinoma of the breast and its treatment. *Med Press* 1888; i:552–3.

2. Baum M, Edwards MH. Management of early carcinoma of the breast. *Lancet* 1972; 2:85.

3. Lee BJ. Conservatism in the treatment of primary operable cancer of the breast. In: Report of the international conference on cancer, London, 1928. British Empire Cancer Campaign. London: J. Wright, 1928.

4. Skrabenek P. False premises and false promises of breast cancer screening. *Lancet* 1985; 2:316–20.

5. Lowe CR. Breast cancer. In: Screening in medical care. Reviewing the evidence. Nuffield Provincial Hospitals Trust. London: Oxford University Press, 1968:33.

6. Moore FD. Breast self-examination. *N Engl J Med* 1978; 299:305.

7. Frank JW, Mai V. Breast self-examination in young women: more harm than good? *Lancet* 1985 2:654–7.

8. Haagensen CD, Bodram C, Haagensen DE. Breast carcinoma: risk and detection. Philadelphia: W.B. Saunders, 1981.