

Screening for Disease

FALSE PREMISES AND FALSE PROMISES OF BREAST CANCER SCREENING

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THE evidence that breast cancer is incurable is overwhelming. The philosophy of breast cancer screening is based on wishful thinking that early cancer is curable cancer, though no-one knows what is "early". Unable to admit ignorance and defeat, cancer propagandists have now turned to blaming the victims: they consume too much fat, they do not practise breast self-examination, they succumb to "irrational" fears and delay reporting the early symptoms. It would appear that no woman needs to die of breast cancer if she reads and heeds the leaflets of the cancer societies and has her breasts examined regularly. Adherence to these myths and avoidance of reality undermines the credibility of the medical profession with the public.

NATURAL HISTORY AND CURABILITY OF BREAST CANCER

Breast cancer is the commonest cancer in women: by the age of 75, between 6% and 10% have clinical breast cancer.¹ It is about ten times more common than cervical cancer; and, if screening for cancer could reduce the case-fatality rate, breast cancer should be top of the list for screening.

Natural History

Since surgical treatment for breast cancer has been available for more than 100 years, there is scant information on unoperated cases. Bloom et al² reviewed 250 cases of untreated breast cancer from the period between 1805 and 1933. Only 35% of these cancers were histologically documented, but the great majority were in stage III or IV (97.5%). Surprisingly, after 5 years 20% were still alive, and 5% survived 10 years. The cumulative survival curve in Bloom's series exhibited a peculiar pattern of decreasing mortality with time. This paradoxical decrease in the force of mortality with time has also been observed in treated cancers.^{3,4} Another oddity in the natural history of breast cancer is that very large tumours (>6 cm) have better survival rates than smaller tumours.³ Breast cancer is not a nosological entity: Gallager⁵ listed more than twenty pathological categories. Some of the variants metastasise rarely and have an excellent prognosis—eg, tubular ductal carcinoma, which represents about 10% of the tumours.⁶

Another piece of evidence regarding the natural history of breast cancer is analysis of tumour doubling times. Most tumours are detected when their diameter is more than 1 cm (which is about the limit of palpability), but even at this "early" stage the tumour contains 5×10^8 cells, requiring 29 binary divisions from the initial single cancer cell. At the fastest doubling time recorded in one series (109 days)—on the assumption that growth was linear—it would take 8–9 years to reach this stage,⁷ at which, however, many breast cancers have already metastasised.⁸ Bauer et al⁹ estimated that 90% of tumours have metastasised by the time the tumour reaches a volume of 125 μ l and a diameter of 6 mm. For breast cancer discovered between annual screenings ("interval cancers") the doubling time is 30–70 days.¹⁰ "As many as 77% of all breast cancers may grow fast enough to grow from below the threshold size detectable on mammograms to clinically detectable size in less than

12 months."¹¹ The long survival of some patients, whether treated or untreated, suggests a slow growth of some tumours. The slowest doubling time recorded by Buchanan et al⁷ was 944 days. von Fournier et al¹² observed breast cancers with the tumour volume doubling time as long as 5 years and as short as 44 days. Unexpectedly, there was no correlation between the doubling time and the histological grade.

Claims of "cure" in studies with a short follow-up time—ie, less than 30–40 years—are unjustified.^{13–17}

Finally, evidence on the natural history is supplemented by necropsy findings. As many as 6% of women dying of other causes have breast carcinoma in situ and 20% have dysplasia.¹⁸ In 83 consecutive necropsies in women older than 20 years, Nielsen et al¹⁹ found that 21 (25%) had invasive breast carcinoma or premalignant lesions. These figures hide a large potential for overdiagnosis and overtreatment.

Curability of Breast Cancer

If breast cancer is incurable, as many surgeons believe, then screening only adds years of anxiety and fear. The current controversy between the advocates of maximal and minimal surgery—ie, between the "radicals" and the "conservatives"—stems from their respective beliefs as to the local or systemic nature of breast cancer. This is not a new division.

In 1888, Jackson commented upon the lack of evidence that simple mastectomy is inferior to more radical operations, which, at his time, included removal of all axillary nodes (Banks), clearance of the whole axilla (Gross), removal of supraclavicular lymph nodes (Owens), or removal of the upper limb at the shoulder joint (Esmarch), in addition to total mastectomy. Jackson thought that these more radical operations were "unscientific and needlessly cruel to many women" and he warned against ignoring clinical experience which had shown that radical surgery did not defer recurrence: "I hope we shall not, ignoring the opinion of (Sir James Paget as to the constitutional nature of the disease . . . wander on the strength of a delusion as to the local nature of the disease."²⁰ More recently, Baum and Edwards²¹ reiterated that introduction of Halsted's operation in 1898 did not make any impact on survival of breast cancer patients. One hundred years on, the same controversy is around, occasionally degenerating into "vituperation, contumely and vilification"²² with "claims, counterclaims, and quackery . . . admixed heterogeneously in a chaos of doubt."²³ "Enthusiasts put forward widely conflicting views often more notable for dogmatic assertion and vehemence than for logical thought . . . These entrenched though widely ranging doctrines have resulted in a most unhappy and confused clinical situation. Many inadequately controlled series have been published, comparing like with unlike and drawing unjustifiable conclusions."²⁴

In the published work wishful thinking abounds. For example Lewison introduced a volume on breast cancer by stating that "we must now be born-again believers and anticipate the golden age of cancer surgery, complemented by radiotherapy, hormone therapy, chemotherapy, and immunotherapy".²⁵ If we cannot conquer cancer, at least let us give it the full works.

Chemotherapy and endocrine therapy have only a limited and palliative value.^{26,27} Fashions in chemotherapy change too fast for allowing a reasonable time to assess them, but rapid changes are themselves indicative of unfulfilled promise. "One must be astonished at the sudden plethora of therapeutic talent, though not without fear of the coming day of reckoning."²⁸ The common fallacy of comparing "respondents" with "non-respondents" in chemotherapeutic trials was exposed by Oyc and Shapiro.²⁹

Local mastectomy (with irradiation) was found preferable to radical mastectomy as early as 1928.³⁰ Although this was recently confirmed,^{31,32} we still do not know whether patients survive equally long if the breast is not removed but only irradiated.³³ The value of radiotherapy in early breast cancer remains uncertain.³⁴ Park and Lees concluded that surgery improved the 5-year survival at best by only 5–10%.³⁵ Survival rates are little affected by any