Management of breast cancer 50 years ago

In 1970, 50 years ago, I had headed the newly established Academic Unit of Surgery at the Westminster Medical School for 10 years. Since my appointment there in 1960, and for the next 30 years, one of my main interests as a general surgeon was the management of diseases of the breast – breast cancer in particular.

Harold Ellis

Author details can be found at the end of this article

Correspondence to:
Harold Ellis; bjhm@markallengroup.com

What was the management of breast cancer 50 years ago when, as it remains today, it vies only with carcinoma of the lung as the commonest cause of deaths from malignant disease in women in the western world?

In 1971, I published a review of the current management of breast cancer at that time, which, I believe, gives the reader a fair idea of the state of affairs half a century ago (Ellis, 1971). Up to the early 1960s, the standard treatment throughout the western world of so-called 'early' cases, that is to say those without clinical or radiological evidence of metastatic disease or of clinical local invasion, would be a 'radical mastectomy', popularised by William Halsted of Baltimore in the 1880s. This comprised complete removal of the diseased breast and the overlying skin, together with the underlying pectoral muscles and meticulous clearance of the axillary lymph nodes on the affected side. If necessary, a skin graft would be used if the resulting skin defect could not be closed.

Any operation less radical than this was considered to amount to malpractice. I remember well my chief, when I was resident surgical officer in the old Sheffield Royal Infirmary in 1953, looking over my shoulder as I was performing this operation and saying: 'make quite sure you get that very top-most lymph node from out of the apex of the axilla'.

However, there were pioneer surgeons, of whom the most influential was David Patey at the Middlesex Hospital, London, who showed that a simple mastectomy with preservation of the pectoral muscles, combined with meticulous dissection of the axillary nodes (the Patey mastectomy), gave satisfactory long-term results as regards survival and local disease control. This was confirmed by careful studies by surgeons on both sides of the Atlantic, even though the majority of surgeons stoutly remained in the 'radical mastectomy' camp. Indeed, there were surgeons, especially in the USA, who practiced still more radical surgery, with dissection of the internal mammary (internal intercostal) lymph nodes, radical removal of the surrounding skin and skin grafting of the resultant wide area of skin loss.

Because of the continued depressing follow-up results of mastectomy, in terms of deaths from disseminated disease, there was considerable interest in the 1960s in the possibility of earlier diagnosis of breast cancer by screening. Three methods of screening were available: clinical examination, X-ray mammography and thermography of the breasts. As stated in a leading article in the Lancet in 1970:

> **'the hope is that the screening of well women will identify tumours before they are found by the patients themselves and that earlier diagnosis will, in turn, improve the results of treatment' (The Lancet, 1970).**

The yield from clinical examination alone was recognised as likely to be small. One study of 4000 women in Ealing (Thomas, 1970) in clinics and in the medical departments of local factories revealed a total of seven breast cancers detected.

Mammography of symptomless women, carried out in various studies in the USA, found approximately 1.4 cases of unsuspected tumour per 1000 women examined. At that time (1970) it appeared that the man hours and technical skill required were beyond the medical resources in the UK.

Thermography, which depended on the fact that cancerous tissue gives off more heat than normal tissue, held the possibility of a relatively cheap and safe screening technique

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for breast malignancy, but trials found it to be of little value in clinical practice and it was soon abandoned.

After reviewing these and other reports in my 1971 article, I concluded:

> **'far more knowledge is required concerning the value of screening programmes and whether, indeed, prognosis can be improved thereby. If so, considerable mobilisation of resources must take place so that women should not be denied this advantage'.**

I am afraid that, 50 years later, as technology of diagnosis and treatment rapidly advances, the true value of our expensive screening programme for breast cancer remains the subject of lively debate.

Fifty years ago, sadly, too many of our patients with breast cancer presented per primam with advanced local or disseminated disease or this might follow what had been hoped was curative treatment of the primary lesion. Wherever possible, a toilet mastectomy was performed. Palliative radiotherapy was used for local inoperable disease or metastasis. Hormonal manipulation, oophorectomy, adrenalectomy and pituitary ablation were used for disseminated disease, together with the development of increasing numbers of highly toxic anti-cancer drugs, but all too often the results were disappointing.

Author details

Guy's, King's and St Thomas' School of Biomedical Sciences, London, UK

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