

Letters

Axillary Surgery in Breast Cancer: What Debate?

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PROFESSOR MARGOLESE recapitulates the Fisher theory that breast cancer is a systemic disease and avers that this provides a more "biological" perspective (this issue, p. 801). Instead of the "unified" therapy proposal that he proposes, what is needed is individualisation of treatment with tailoring of therapy to the specific needs of the patient. He asserts that the extent of axillary dissection has no impact on disease-free or overall survival, citing results from the NSABP B04 trial [1], in which patients were randomised to treatment by radical mastectomy or total mastectomy with radiotherapy to chest wall and gland fields or total mastectomy alone.

In this study 35% of patients assigned to total mastectomy had axillary nodes removed and more than four nodes were examined in 28% of this subgroup. The frequency with which patients undergoing mastectomy required axillary dissection has depended upon the extent of the original, albeit inadvertent, axillary dissection. Axillary recurrence developed in 21% of patients in whom no nodes were removed but in all 12% of those in whom one to five nodes were removed and none of those in whom at least six nodes were excised. These findings suggest that a significant proportion of patients in the mastectomy only group could have benefitted from axillary treatment.

Evidently he missed the recent publication in this journal from the Danish Breast Cancer Cooperative Group [2]. In this very large series of over 7000 patients with breast cancer, all of whom were deemed to be node negative based on axillary sampling, it was found that there was a significant relation between the number of nodes examined by the pathologist and the eventual outcome for patients. The number of nodes examined depends upon both the diligence of the pathologist and also the extent of surgical resection. Where 10 or more negative lymph nodes were removed, there was not only a significantly better axillary recurrence-free survival but also improved disease-free and overall survival. This supports the evidence derived from the Guy's Hospital wide excision trials that inadequate treatment to the axilla leads not only to more local relapses, but also to an increased likelihood of dying of metastatic breast cancer [3].

Margolese states that radiation to the axilla can be given after axillary dissection but has no impact on survival. Again, he ignores another large trial from Denmark which comprised 1473 premenopausal and 1202 postmenopausal patients who had been treated by total mastectomy and axillary sampling [4]. All these cases were expected to be at higher risk of relapse, either because of a tumour greater than 5 cm diameter and/or axillary node positivity. Premenopausal patients received adjuvant chemotherapy (cyclophosphamide, methotrexate, fluorouracil) and postmenopausal women were given tamoxifen. They were then randomised to either no further treatment or to radiotherapy to the chest and gland fields. Despite being given appropriate adjuvant therapy, in the group who did not receive radiation there was a statistically increased incidence of axillary nodal recurrence and a reduction in both disease-free and overall survival. Among the premenopausal patients the reduction in survival achieved statistical significance.

This, however, was only one side of the argument. It is equally important not only to achieve local control but to select patients for adjuvant therapy and identify patients likely to benefit and those for whom this is not necessary. This will only depend in part upon axillary nodal status, but also on other prognostic variables. Taking a combination of tumour size, type and node negativity it is possible to identify a group of patients for whom no adjuvant therapy is required [5]. Such individuals have no greater risk of dying than age-matched controls without breast cancer provided that they have received effective local treatment. However, the majority of patients will need some form of systemic therapy and this is going to depend upon not just presence of nodal metastases but upon the number of involved nodes and new adjuvant protocols will focus upon this aspect, with intensification of treatment for those with the poorest prognosis.

Margolese is enthusiastic about the early results of primary chemotherapy which bypasses the opportunity to obtain impartial prognostic information prior to treatment. How the lack of these data will impact on subsequent management of these patients is still not known.

No attempt has been made to stifle new approaches to the treatment of early breast cancer, nor is any assumption being made if only one more lymph node could be removed it would be possible to cure breast cancer. However, while awaiting the "biological" breakthrough that we all seek it is important that routine surgical practice should encompass what is demonstrably the most effective form of local control together with the most sensitive forms of selection for adjuvant therapy.

1. Fisher B, Redmond C, Fisher E, *et al.* Ten year results of a randomised clinical trial comparing radical mastectomy and total mastectomy with or without radiation. *N Engl J Med* 1985, **312**, 674-681.
2. Axelsson CK, Mouridsen HT, Zedeler K. Axillary dissection of Level I and II lymph nodes is important in breast cancer classification. *Eur J Cancer* 1992, **28A**, 1415-1418.
3. Atkins H, Hayward JL, Klugman DJ, Wayte AB. Treatment of early breast cancer: A report after ten years of a clinical trial. *Br Med J* 1972, **2**, 423-429.
4. Overgaard M, Christensen JJ, Johansen H, *et al.* Evaluation of radiotherapy in high-risk breast cancer patients: Report from the Danish Breast Cancer Cooperative Group (DBCG 82) Trial. *Int J Radiat Oncol Biol Phys* 1990, **19**, 1121-1124.
5. O'Reilly SM, Camplejohn RS, Barnes DM, Millis RR, Rubens RD, Richards MA. Node-negative breast cancer: Prognostic subgroups defined by tumour size and flow cytometry. *J Clin Oncol* 1990, **8**, 2040-2046.