Explaining variations in survival in breast cancer in the Eastern Region of England

In their study on treatment and survival of patients with breast cancer treated in 10 hospitals in the Eastern Region of England from 1999 to 2003, Wishart et al. [1] found significant interhospital survival differences for patients with 1–3 positive axillary lymph nodes but not for patients with negative lymph nodes. Differences in the selection of appropriate adjuvant systemic treatment between hospitals are mentioned as a possible explanation for this finding. The authors provide no data to support their assertion, although data on the use of adjuvant systemic treatment for each hospital were available to them.

But the explanation given seems unlikely because treatment guidelines for the use of adjuvant systemic treatment have always been much more straightforward for patients with positive lymph nodes than with negative nodes. Therefore, one would expect the variation in adjuvant systemic treatment to have been much larger for patients with negative axillary lymph nodes than with 1–3 positive nodes. Already since the 1980s, or at least since the early 1990s, all node-positive patients are recommended to receive hormonal treatment or chemotherapy, depending on their menopausal status and the hormone receptor status of their tumour. It has taken much more effort to reach consensus about the use of systemic treatment in node-negative patients and guidelines have changed rapidly since the first publications by the Early Breast Cancer Trialists’ Collaborative Group [2]. Age, estrogen receptor or progesterone receptor status, tumour size and tumour grade all play a role in the decision to use chemotherapy, hormonal therapy or a combination of both when nodes are negative [3].

In our view, only if variation in the use of systemic treatment appears to be larger for patients with 1–3 positive lymph nodes than for patients with negative lymph nodes, this could be a plausible explanation for the observed survival differences between the hospitals in this subgroup. Perhaps, the authors could provide such data.

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