Breast Cancer Res Treat (2007) 103:109
DOI 10.1007/s10549-006-9350-5

LETTER TO THE EDITOR

Is survivin expression nevertheless related to disease outcome in breast cancer?

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Received: 18 July 2006 / Accepted: 18 July 2006 / Published online: 21 September 2006

To the Editor

We read with great interest the paper of Kostadima et al. in the Online First section of Breast Cancer Research and Treatment [1]. They describe how they quantitatively measured mRNA levels of survivin in breast cancer patients but fail to correlate these levels with disease outcome. This is in contrast with a paper from our group [2] which the authors state is most likely related to the high proportion of node positive patients (99%) in their population compared to ours (52%). If survivin is only prognostic early in the disease, their study would be unable to detect this.

However, we feel that is more likely to be caused by either one of two alternative explanations; although they use quantitative RT-PCR, the authors chose to dichotomize the patients based on absence and presence of survivin transcripts. It is commendable that the authors succeed in achieving 97% positive survivin expression from formalin-fixed tissues, but this causes the groups to be very disproportionate. The power of the survival analyses is severely reduced, and a multivariate analysis as performed by the authors is unfeasible, when one of the groups contains only 9 patients and one event. Rather, the authors might have used a median cut-off or entered survivin levels as a continuous variable in a Cox regression model, thereby taking advantage of the quantitative nature of their data. Furthermore, we have recently reported how survivin protein levels measured in extracts from breast cancer tumors using an ELISA predict the efficacy of therapy for advanced disease [3]. Thus, their explanation that survivin might only be relevant early in the disease is probably incorrect. In our paper, we also show that the clinical value of survivin is dependent on the type of systemic therapy. This is also relevant to properly appreciate the data from Kostadima et al. as all their patients received chemotherapy.

In conclusion, we feel that the study of Kostadima et al. might contain much more interesting data than was presented in the present paper and hope that is it possible for the authors to report their results when more proportionate patient groups are selected and with stratification on type of systemic therapy.

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