Letter to the Editor

Prognosis and Cytomorphometry in Breast Cancer

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IN a previous study we found that variation in nuclear area of the cells of fine needle aspiration smears was an important prognosticator [1]. This time the prognostic factor was tested on a separate group of 58 patients, using the same criteria for selection and data recording. The time of follow-up was at least 4 years or until death, the morphometric and statistical analyses used were the same as in the previous study.

Figure 1 shows the for intercurrent death corrected survival curves for patients without and with axillary metastases according to the size of the 80% interpercentile range of the nuclear areas (RNAR). We observe a decrease in survival with an increasing RNAR but the difference in survival between patients with RNAR $< 85\ \mu m^2$ and patients with a RNAR $\geq 85\ \mu m^2$ is statistically not significant. This is in contrast with our earlier results.

The prognostic score found in the previous study was 0.03 × RNAR + 1.9 (if positive lymphnodes are present). Replicating this analysis on the data from this group of 58 patients other coefficients were found: 0.0024 instead of 0.03 and 1.8 instead
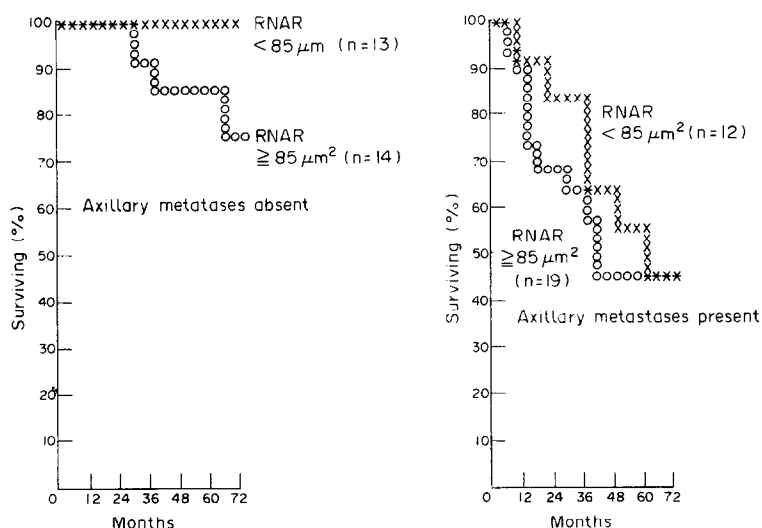

Fig. 1. *Intercurrent death corrected survival according to 80%-interpercentile range and lymphnode status.*

of 1.9. The value of the coefficient for the lymphnodes did not differ significantly from the value found in the previous study.

In the first study all morphometric parameters showed a significant correlation with survival and the RNAR seemed the most important parameter as such. The morphometric measurements of the first group of patients were done by one person, the morphometric measurements of the second group of patients by another person. Selection of material for morphometric measurements is of extreme importance. Strict measurement protocols should be used to increase interobserver reliability [2, 3]. It has been shown for instance, that big nuclei were not selected for measuring because the person who did the measurements assumed these nuclei were degenerated. However these nuclei were anaplastic carcinoma cells that had lost their cytoplasma during smear preparation [4]. It is obvious that differences in the selection of this type of cells could be one explanation for the discrepancy of the results.

We conclude that once again the prognostic value of lymphnode status is confirmed, but the prognostic value of the variation in nuclear area is not confirmed. Further work on selection mechanisms is needed.

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