Abstract


Roles of Ki67 in Breast Cancer - Important for Management?

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Author information

Abstract

BACKGROUND: The three standard biomarkers used in breast cancer are the estrogen receptor (ER), progesterone receptor (PR) and human epidermal growth factor receptor 2 (HER2). The Ki-67 index, a proliferative marker, has been shown to be associated with a poorer outcome, and despite absence of standardization of pathological assessment, is widely used for therapy decision making. We aim to study the role of the Ki-67 index in a group of Asian women with breast cancer.

MATERIALS AND METHODS: A total of 450 women newly diagnosed with Stage 1 to 3 invasive breast cancer in a single centre from July 2013 to Dec 2014 were included in this study. Univariable and multivariable logistic regression was used to determine the association between Ki-67 (positive defined as 14% and above) and age, ethnicity, grade, mitotic index, ER, PR, HER2, lymph node status and size. All analyses were performed using SPSS Version 22.

RESULTS: In univariable analysis, Ki-67 index was associated with younger age, higher grade, ER and PR negativity, HER2 positivity, high mitotic index and positive lymph nodes. However on multivariable analysis only tumour size, grade, PR and HER2 remained significant. Out of 102 stage 1 patients who had ER positive/PR positive/HER2 negative tumours and non-grade 3, only 5 (4.9%) had a positive Ki-67 index and may have been offered chemotherapy. However, it is interesting to note that none of these patients received chemotherapy.

CONCLUSIONS: Information on Ki67 would have potentially changed management in an insignificant proportion of patients with stage 1 breast cancer.


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