

FACTORS AFFECTING SURVIVAL IN BREAST CANCER PATIENTS FOLLOWING BONE METASTASIS

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Aims and background: The purpose of the study was to identify prognostic factors that affect survival following bone metastasis in breast cancer patients with first metastases in the skeletal system.

Methods and study design: We analyzed retrospectively the data of 248 metastatic breast cancer patients whose first distant metastasis was in the skeleton.

Results: The median age of the patients at diagnosis was 46 years (range, 23-76). Nearly half of the patients were premenopausal (52.4%). The median disease-free survival was 24 months. For most of the patients (221), bone was the sole first metastatic site, and the disease remained confined to the bone in 99 of them. The remaining patients (n = 27) had both bone and visceral metastasis at the time of first relapse. One hundred and fourteen of the patients (46%) had died by the time of analysis. With the median follow-up of 50.5 months from diagnosis, median survival after bone metastasis was 32 months.

Key words: bone metastasis, breast cancer, prognostic factors.

In univariate analyses, statistically significant predictors for survival after bone metastasis were axillary lymph node status, T stage of disease, hormone receptor status of the primary tumor, the presence of lymphovascular invasion, involvement of skin, the presence of additional nonosseous metastatic sites at the time of bone relapse, and disease-free interval. In multivariate analyses, the presence of additional non-osseous metastatic sites at the time of bone relapse, T stage of disease, hormone receptor status of the primary tumor, and the presence of lymphovascular invasion were found to be significant independent prognostic factors.

Conclusions: In the result of study, for patients with breast cancer, survival following bone metastasis is affected by secondary prognostic factors such as disease-free interval and extent of metastasis besides primary prognostic factors related to the primary tumor.