

## The Effect of Patho-biological Factors on the Survival of Recurrent Breast Cancer Patients

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### Abstract

**Introduction:** The recurrence of breast cancer after treatment is a loco-regional or distant metastasis recurrent. Although patients with metastasis are known as incurable, existing treatments might prolong patients' life while improving its quality. This is possible through identifying effective survival factors. This study evaluates the factors influencing survival after recurrence in recurrent breast cancer patients.

**Materials and Methods:** This study was performed on 442 recurrent breast cancer patients who had been referred to the Cancer Research Center of the Shahid Beheshti University between 1985 to 2015. After confirming the recurrence as a distant metastasis or loco-regional recurrence, the effects of demographic, clinic-pathologic, biological, type of surgery and type of adjuvant treatments on the survival of patients were evaluated through statistical analysis.

**Results:** The mean survival after recurrence was 18 months (5 days to 13 years), 219 patients (70.42%) survived two years, 75 patients (24.12%) survived from 2 to 5 years, and 17 patients (5.47%) survived more than 5 years. In this study, it was found through a univariate analysis that the factors of age, lymph node status, DFI, place of recurrence and nodal ratio are the most effective on survival after recurrence. Yet, in multivariate analysis, the most important factors influencing survival after recurrence included the place of recurrence and the lymph node status.

**Conclusions:** The results of this study can enhance our knowledge in better understanding the effects of different factors on survival of patients after breast cancer recurrence, thus, it might be effective in treatment of patients before and after recurrence.