

Survival rate and its correlated factors in breast cancer patients referred to Breast Cancer Research Center

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Background: Survival rate is one of the most important indicators for evaluation of the care quality in different types of malignancies including breast cancer. The aim of this study was to estimate 2 and 5 years survival rate and its correlated factors in breast cancer patients referred to BCRC (Breast Cancer Research Center).

Methods: All of the patients referred to BCRC from 1998 to 2006 included in historical cohort study. In 2011, demographic, clinical and treatment data of patients were completed and the death time was recorded by telephone interview. Survival estimates were calculated using the Kaplan-Meier method and predicting factors of overall survival rate were studied by Cox's proportional hazard model.

Results: Totally, 623 patients recruited in the study. The mean age of patients was 46.5 (± 11.2). About half of them (49%) had high school and higher education and 53% of them were in stage II of disease. Death occurred in 18% of patients. The overall 2 and 5 year survival rates were 96% and 87% respectively. Cox regression analysis indicated lymph node involvement HR (95% CI) =2.22(1.05-4.7), negative Estrogen Receptor HR (95% CI) =2.06(1.19-3.59) and educational level lower than high school HR (95% CI) =2.04(1.15-3.62) as predictors of breast cancer survival.

Conclusion: The high survival rate of breast cancer patients in BCRC introduces the importance of implementing multidisciplinary centers for diagnosis and treatment of different cancers. Increased hazard ratio of death with nodal involvement persists on the effective role of early diagnosis of breast cancer in providing more effective treatment procedures and higher quality of life.

Keywords: Breast Cancer, Survival Rate, Correlated Factors, BCRC.