Factors Affecting Survival in Patients with Breast Cancer in Hamedan Province from 2001 to 2018

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Abstract

Introduction: Breast cancer is the most common cancer and one of the leading causes of death in women. Identification of factors affecting the survival rate of these patients is important for the prevention of breast cancer progression and better treatment.

Methods: This retrospective cohort study was performed on 493 women with breast cancer referred to Imam Khomeini clinic in Hamadan between 2001 and 2018. The Kaplan-Meier method and the Cox proportional hazard model were used to estimate the survival rate and factors affecting patient survival. All analyses were performed using SPSS 21.

Results: The mean (standard deviation) age of the patients was 49.75 (11.34) years, and the 5- and 10-year survival rates were 61% and 86%, respectively. The Cox proportional hazards model showed a significant relationship between age(HR (%95 CI)=1.53(1.23-2.78)) and tumor size (HR (%95 CI)=1.49(1.16-2.89)) and mortality risk (P < 0.05).

Conclusion: Age and tumor size are associated with survival in patients with breast cancer. Therefore, increasing women’s awareness of the benefits of periodic examinations and early diagnosis can contribute to early detection of the disease and improved survival.

Keywords: Age, Tumor Size, Breast Cancer, Kaplan-Meier Analysis, Cox Model