

Survival Analysis of Identifying the Risk Factors of Affecting the First Recurrence Time of Breast Cancer: The Case of Tigray, Ethiopia

Authors : Segen Asayehegn

Abstract : Introduction: In Tigray, Ethiopia, next to cervical cancer, breast cancer is one of the most common cancer health problems for women. Objectives: This article is proposed to identify the prospective and potential risk factors affecting the time-to-first-recurrence of breast cancer patients in Tigray, Ethiopia. Methods: The data were taken from the patient's medical record that registered from January 2010 to January 2020. The study considered a sample size of 1842 breast cancer patients. Powerful non-parametric and parametric shared frailty survival regression models (FSRM) were applied, and model comparisons were performed. Results: Out of 1842 breast cancer patients, about 1290 (70.02%) recovered/cured the disease. The median cure time from breast cancer is found at 12.8 months. The model comparison suggested that the lognormal parametric shared a frailty survival regression model predicted that treatment, stage of breast cancer, smoking habit, and marital status significantly affects the first recurrence of breast cancer. Conclusion: Factors like treatment, stages of cancer, and marital status were improved while smoking habits worsened the time to cure breast cancer. Recommendation: Thus, the authors recommend reducing breast cancer health problems, the regional health sector facilities need to be improved. More importantly, concerned bodies and medical doctors should emphasize the identified factors during treatment. Furthermore, general awareness programs should be given to the community on the identified factors.

Keywords : acceleration factor, breast cancer, Ethiopia, shared frailty survival models, Tigray

Conference Title : ICBCP 2021 : International Conference on Breast Cancer in Pregnancy

Conference Location : Boston, United States

Conference Dates : April 22-23, 2021