AUTHOR CORRECTION

Author Correction: A Case Study on Modeling the Time to Recurrence of Gastric Cancer Patients

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The original version of this article unfortunately contained a mistake. Abstract and keywords are previously not included in the article.

Abstract

Background Gastric cancer is a malignant tumor of the stomach and it is one of the leading causes of death worldwide. The study aimed to model the time to first recurrence of gastric cancer patients at the Tikur Anbesa specialized hospital.

Methods The data for this study were gastric cancer patients followed up from January 1, 2013, to February 29, 2020, at Tikur Anbesa Specialized Hospital, Oncology Center, Addis Ababa. We used Weibull, log-logistic and log-normal as baseline hazard functions with the gamma and the inverse Gaussian frailty distributions. Data analyzed with the statistical software R.

Results The median recurrence time of the patients was about 23.96 months with a maximum recurrence time of 60.81 months, of which about 61.2% had first recurrences of gastric cancer. The clustering effect is significant in modeling the time to recurrence of gastric cancer. According to the result of the log-logistic inverse Gaussian frailty model, the sex of the patient, the tumor size, smoking habit, the treatment carried out, the vascular invasion, the stage of the disease, the helicobacter pylori infection and the histological type were the significant prognostic factors at 5% level of significance.

Conclusion Inverse Gaussian frailty model is the model that best describes the time to recurrence of the gastric cancer data set. Gender of the patients, tumor size, treatment taken, vascular invasion, disease stage, helicobacter pylori infection and histological type were the determining prognostic factors. This requires measures to improve patient health and prevent relapse based on significant risk factors, and particular attention should be paid to patients with such factors.

Keywords: Survival Data Analysis; Gastric cancer; Recurrence; Parametric Shared Frailty Model

The original article has been corrected.

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