Original Paper

Prognostic factors in gastric cancer using log-normal censored regression model

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Abstract

Background and Objective: Gastric cancer is one of the most common cancers in the world. Although its incidence is decreasing, it rarely is detected early, and the prognosis remains poor. The aim of this study was to evaluate prognostic factors in gastric cancer using log-normal regression model.

Materials and Methods: This retrospective study was done on 746 patients with gastric adenocarcinoma from February 2003 through January 2007. Gender, age at diagnosis, family history of cancer, tumor size and pathologic distant of metastasis were entered to a log-normal model. Relative risk (RR) was employed to interpret the risk of death.

Results: Results indicated that patients who were upper than 45 years at diagnosis had an increased risk for death (RR=1.01 95% CI, 1.01-1.03), followed by greater tumor size (RR=1.64, 95% CI, 1.07-2.25) and pathologic distant metastasis (RR=2.14, 95% CI, 1.60-2.86) and similar results in multivariate analysis for greater tumor size (RR=2.04, 95% CI, 1.23-3.33) and pathologic distant metastasis (RR=2.01, 95% CI, 1.13-3.56).

Conclusion: This study showed that the early detection of patients in younger and in primary stages and grade of tumor is important to decrease the risk of death in patients with gastric cancer and increase the survival rate.

Keywords: Gastric cancer, Prognostic factors, Log-normal regression

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