

Abstract

Geographical distribution of gastric cancer and its risk factors in Ardabil province

Introduction: Gastric cancer is the 4th prevalent cancer around the world and second leading cause of death due to cancers. Ardabil province is one of the most prevalent areas of gastric cancers in Iran.

Objective: In this research the geographical distribution of gastric cancer in Ardabil province and the effect of Gastric cancer risk factors such as smoking and distance from volcanic mountain Sabalan are studied.

Material and methods: In this cross-sectional research study 1056 patients diagnosed with Gastric cancer from March 2002 to May 2011 in Ardabil province. The data of the patients such as residency, tumor pathology and ECT derived from the documents of Aras clinic of Ardabil Imam Khomeini hospital. This data are processed and analyzed by SPSS-10 and GIS softwares. The geographic maps of Ardabil province are obtained, which shows the distribution of the patients in terms of sex, job, risk factors (smoking), pathological and anatomical type of tumor and distance from Sabalan volcanic mountain.

Result: One thousand and fifty six pathologically confirmed gastric cancers from 2002 through 2011 were included in this study. Adenocarcinoma was the dominant tumor histology and it was more common in males. In this study, it is observed that in most of the patients, the cancer tumor comes into existence in the cardia of the stomach. In addition the majority of the patients are rural. Daily cigarette smoking was found as a risk-increasing factor in 391 cases (37.42 percent of patients) are agriculture. Incidence rate of cancer in seventy kilometers of volcanic mountain Sabalan is 0/00038 and in 70 - 160 kilometers is 0/00032.

Conclusion: The result of this study showed that by distancing from volcanic mountain Sabalan, the number of patients having gastric cancer decreases averagely. This research confirms that the volcanic mountains can be considered as one of the environmental factors causing cancer diseases. So reduction of some risk factors such as smoking can lead to low incidence of gastric cancer.

Key words: Gastric cancer, geographical distribution, risk factor