

## posters

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### Geographic distribution of gastric cancer and relating risk factors in Ardabil province, Iran

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**Introduction:** Gastric cancer is the 4th prevalent cancer around the world and it is responsible for the second reason of cancer-related mortality. Ardabil province is one of the most susceptible areas for gastric cancers in Iran. In this research the geographical distribution of gastric cancer and its effect on risk factors of gastric cancer such as smoking and distance between Sabalan volcano and patient's residence region have been studied in province of Ardabil.

**Methods:** In this cross-sectional study, 1,056 patients diagnosed with Gastric cancer from March 2002 to May 2011, have been involved. The patient's clinical data such as residency, tumor pathology pattern and CT graphics were derived from their archived documents at Aras clinic of Ardabil Imam Khomeini hospital. This data has been processed and analyzed by means of SPSS-10 and GIS. Having marked characteristics such as the distribution of the patients in terms of sex, job, risk factors like smoking, pathological and anatomical type of tumor and the distance from Sabalan volcano on geographic maps of Ardabil province were obtained.

**Results:** 1,056 pathologically confirmed gastric cancer cases from 2002 through 2011 were included in our study. Adenocarcinoma was the mostly observed histopathology pattern and remarkably more in males. In this study, it was observed that the most of the patients had their malignant tumors in cardiac region of their stomach. Furthermore the majority of the patients were rural, daily cigarette smoking was found as an enhancing risk factor in 391 cases (37%) and 42% of patients were farmers. Cancer incidence rate in 70 kilometers radius from Sabalan volcano, 0.00038 and in 70-160 kilometers radius 0.00032, were obtained.

**Conclusion:** The results of this study revealed that as the distance from Sabalan volcano increases, we face with reduced number of gastric cancer cases. Therefore, the volcanoes can be considered as an environmental factor causing gastric cancer and also limiting some risk factors such as smoking can reduce incidence of gastric cancer.