

Abstract

Background and Objective: Cancer is the first and second cause of death in developed and developing countries, respectively. Microscopic invasive and endoscopic methods are not routine for screening for gastric cancer, so the need for biomarkers with the ability to detect rapidly, easily and with high sensitivity in the early stages of cancer is highly felt. The aim of this study was to determine the serum RNA level of STC2 gene in patients with gastric cancer in Ardebil province (referrals to Fatemi and Imam Khomeini Hospitals in Ardebil).

Materials and Methods: This case-control study was conducted during 1995 and 1996 in Ardabil University of Medical Sciences. The study sample consisted of 50 patients with gastric cancer (case) and 50 healthy controls (control). Peripheral blood samples were collected from patients with gastric cancer as well as volunteers as control group in EDTA anticoagulant tubes and were immediately subjected to serum isolation. After centrifugation, serum RNA was extracted and after the synthesis of CDNA, the Taq Man and Real-time PCR methods were used and the serum RNA level of STC2 gene was measured using specific primers and probes. Then, the results of serum assessments and clinical and pathologic information of the patients and the control group were collected along with the data obtained from patient records and demographic findings and regulatory tables and related charts. For analyzing descriptive information, the central indices (mean, mean) and dispersion indices (standard deviation, variance) and SPSS 22 software were used. Due to the lack of normal distribution of data, spearman correlation coefficient and u mann-whitay and kruskal wallis tests were used for analysis.

Results: Data analysis showed that the most common anatomical site of the canker was the trunk of the stomach. Increasing the expression of STC2 in 26 patients with gastric cancer cases and 8 cases in the control group showed a significant correlation between STC2 gene expression and Gastric cancer.

Conclusion: Based on the findings of this study, there was no relationship between age, sex, tumor differentiation, anatomical location of gastric cancer, subtypes of cancer, and STC2 expression, but there was a significant relationship between the frequency of cases with STC2 expression and the age above 65 years and the TNM division There was a cancer.

Keywords: Stomach Cancer; Stanniocalcin Gene; Micro RNA