

Abstract

Esophageal cancer is one of the eight common cancers and the sixth cause of death. Iran is one of the countries having the most epidemic rate of esophageal cancer which is the second highest among Iranian men and women respectively. The *Epidermal growth factor receptor* is a receptor tyrosine kinase of the ErbB Family. That expression of EGFR has a role in the pathophysiology of epidermal-based malignancies such as esophageal cancer. EGFR is also an important criterion in the evaluation of disease staging and prognosis. In this research project EGFR gene was studied in patients suffering from esophageal cancer in Iran. Fifteen FFPE esophageal cancer tissue samples were analyzed for EGFR gene expression level by real-time quantitative reverse transcriptase polymerase chain reaction. All PCR reactions were performed in triplicate for both target gene and internal control (*Actin B*) with the $2^{-\Delta\Delta C_t}$ method. The result showed that there is no significant difference between the amount of EGFR gene expression among the patients and healthy people ($P < 0.05$). All analyses were performed using the SPSS 13 software (SPSS, Inc., Chicago, IL). The results of applying Livak or $2^{-\Delta\Delta C_t}$ showed EGFR that the increase rate of EGFR gene expression in patients is 2/25 times more than the healthy people but there is not any significant difference between the increase of EGFR gene expression and the sex of people.

Key words: Esophageal cancer, epidermal growth factor receptor



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