

## Evaluation of rs3746444 Polymorphism of miR-499 Gene in Patients with Colon Cancer Compared with Healthy Subjects

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### Abstract

**Background:** Single nucleotide polymorphisms (SNPs) have been introduced as a new genomic source for cancer. Therefore, it was decided to conduct a study to evaluate the rs3746444 polymorphism of miR-499 in patients with colon cancer in comparison with healthy subjects.

**Methods:** This case-control study was conducted to investigate rs3746444 polymorphism of miR-499 in blood samples of case and control groups. Patients with a confirmed diagnosis of cancer based on pathologic report were enrolled in the study as the case group and compared with healthy subjects. The level of significance was considered at  $p < 0.05$ .

**Result:** The mean of DNA count in samples was  $63.17 \pm 23.51$  that was significantly higher in the case group. The rs3746444 polymorphism of miR-499 was significantly higher in patients with cancer compared to the healthy subjects ( $P < 0.05$ ).

**Conclusion:** In this study, rs3746444 polymorphism of miR-499 was significantly higher in patients with colon cancer, which indicated that people with this polymorphism had a higher risk for malignancy.

**Keywords:** Rs3746444, Polymorphism, miR-499, Colon Cancer