Association between mir-126 rs4636297 Polymorphism and Risk of Recurrence in Breast Cancer Patients

Ghanbarpanah E 1, Kohan L 1,*, Mohammadinpanah M 2, Tahmasebi S 3

1 Department of Biology, Arsanjan Branch, Islamic Azad University, Arsanjan, Iran
2 Colorectal Research Center, Shiraz University of Medical Sciences, Shiraz, Iran
3 Breast Diseases Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

* Corresponding author: Leila Kohan, Department of Biology, Arsanjan Branch, Islamic Azad University, Arsanjan, Iran. E-mail: Kohan@iaua.ac.ir

Abstract

Introduction The recurrence of breast cancer (BC) is a major cause of cancer death in females. Reduction in miR-126 expression, as a tumor suppressor gene, would conduct to a pro-angiogenic effect. The aim of our study was to examine association of the miR-126 rs4636297 with the recurrence of BC.

Materials and Methods: The present study was done on 424 females with BC (102 patients with the recurrence of BC, as the case group, and 322 women without any recurrence of BC, as the control group). After DNA extraction from peripheral blood, genotyping was done using Tetra Arms PCR Technique. Thereafter, the genotype and allele frequency of miR-126 rs4636297 was compared between the two groups.

Results: The results were shown that there was no significant association between miR-126 rs4636297 polymorphism with BC recurrence.

Conclusions: Thus, miR-126 rs4636297 polymorphism is not associated with the susceptibility of BC recurrence.