



Association of repeats number of VNTR in the promoter region of RhoB gene with risk of gastric cancer

Fariba Shakeri ¹, **Parisa Mohammadinejad** ^{* 2}, **Mohammad Mehdi Moghanibashi**

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¹ M.Sc in Genetics, Biology Department, Faculty of Basic Science, Islamic Azad University, Shahrekord Branch, Shahrekord, Iran

² PhD in Genetics, Assistant Professor, Biology Department, Faculty of Basic Science, Islamic Azad University, Shahrekord Branch, Shahrekord, Iran

³ PhD in Genetics, Assistant Professor, Genetic Department, School of Medicine, Islamic Azad University, Kazerun Branch, Kazerun, Iran

Corresponding Author: Parisa Mohammadinejad, Islamic Azad University, Shahrekord Branch, Shahrekord, Iran, E-mail: parisa_mohamadynejad@yahoo.com, Tell: 09133191269

Abstract

Introduction& Aim: The RhoB gene is one of the genes that are involved in with cancers such as gastric cancer. This gene is contributed in cytoskeletal organization and cell trafficking and its expression is decreased in gastric cancer. There are a VNTR polymorphism in the promoter of the RhoB gene and in this study different genotypes of this VNTR is assessed with risk of gastric cancer, for the first time.

Methods: In this study, the VNTR polymorphism of the promoter region in 250 controls and 100 patients with gastric cancer, is assessed by PCR and electrophoresis on agarose gel. Then, the result is assessed by regression logistic and X² tests.

Results: Our result have showed the 1.9 folds increase risk of gastric cancer with 8 and 9 repeats allele in comparison with 10 and 11 repeats ($p=0.044$).

Conclusion: promoter VNTR polymorphism of RhoB gene have associated with risk of gastric cancer and may be used for screening of gastric cancer if were confirmed by other studies.

Keywords: Gastric cancer, RhoB gene, Variable number of tandem repeats, Promoter.