

عنوان مقاله:

Assessment Bioinformatics of Targetum Signaling Pathways hsa-miR-3605-3p and Its related SNP function (rs12977)
in people with gastric cancer

محل انتشار:

سومین کنگره بین المللی پزشکی شخصی ایران (سال: 1397)

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خلاصه مقاله:

Introduction: Gastric cancer is now recognized as the fifth cancer based on the prevalence and risk of infection. As with other cancers, gastric cancer is associated with various genetic and environmental factors. Our goal in this study is to investigate the bioinformatics relationship of one of the genes involved in gastric cancer by its inhibitor. The RAC1 gene is a member of the Ras family, which acts as a molecular switch to control the regeneration of stem cells and cell growth. Micro-RNAs (miRNAs) are non-coding ribonucleic acids that regulate the expression of the target gene after transcription and are usually negatively regulated. Single nucleotide polymorphism (SNP) is a single nucleotide diversity in specific genetic regions. **Methods:** To find of the bioinformatics relationship between these three components (Gene, miRNA, SNP), NCBI sites, miRNASNP, miRBase, phenomiR, miRWALK2.0 and DAVID were used. **Results:** Our review of this SNP (rs12977) made it clear that the allele G is converted to A, which may affect the binding and function of the microRNAs associated with this region. Studies done on the has-miR-3605-3p determined that this microRNA binds to the 3' UTR of the RAC1 gene transcription with high-power and acts on its inhibitory action. **Conclusion:** According to the data obtained from the miRNASNP database, the binding of this microRNA is gain, that is, the binding strength of the state where the binding of this microRNA to the minor allele (A) increases compared to when the major allele (G) is found. Therefore, due to the role of the RAC1 gene as an oncogene gene, in people who have allele major in the position of microRNA connection in the 3' UTR of the gene RAC1 (rs12977), the binding strength is lower and the inhibition action of the microRNA is in parallel to it gets less, and this The gene is not inhibited as an oncogen gene. Thus, the RAC1 gene, with its own oncogene nature, causes gastric cancer. And we can prevent the expression of the RAC1 gene by increasing the expression of the target miRNA

کلمات کلیدی:

RAC1 gene, miRNA, SNP, gastric cancer

