

# **A PILOT STUDY SCOUTING THE ASSOCIATION OF HOTAIR GENETIC POLYMORPHISMS WITH GASTRIC CANCER RISK IN SOME EGYPTIAN PATIENTS**

## **Abstract:**

Gastric cancer is one of the prevalent malignant tumors all over the world. In the current study we aimed at elucidating a possible correlation between LncRNA-HOTAIR polymorphisms rs7958904 G>C and rs874945 G>A and risk of developing gastric cancer in Egyptian patients. Blood samples were collected from controls and patients. We performed real-time polymerase chain reaction (RT-PCR) for genotyping of the two variant alleles at the SNPs sites of HOTAIR gene in all subjects. As regard rs7958904 SNP, there was statistically significant higher mutant genotype CC and Mutant C allele among gastric cancer patients and as regard rs874945 SNP, there was statistically significant higher mutant genotype AA and Mutant A allele among gastric cancer patients. As regard rs874945 SNP, the mutant genotype AA and the Mutant A allele were statistically significantly higher in Positive H. pylori patients than negative H. pylori patients. In Conclusion, the mutant genotypes (CC and AA) of rs7958904 and rs874945 SNPs of LncRNA-HOTAIR gene predominate in gastric cancer patients that would displayed their impact in increasing the risk of developing gastric cancer in Egyptian patients, while the wild genotypes (GG and GG) predominate in controls which support our hypothesis.