GENETIC ANALYSIS OF STUDY DIAGNOSE MUTATIONS IN A GENE BRAF, NRAS, KRASAND RET GENE INTHYROID CANCER PATIENTS OF GEORGIA BY MATLABENVIRONMENT

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Abstract.

Objectives: Treatment decision-making in thyroidcancer is often guided by tumor tissue molecular analysis. The aim of this study is Study diagnose mutations in a gene BRAF, NRAS, KRAS in thyroid cancer patients of Georgia with determination of the frequency of these mutations in the populations and analyze it by matlab environment.

Setting: Diagnostic molecular laboratory located in Tbilisi, Georgia.

Participants: 135 patients with thyroid cancer participated in the study.

Primary outcome measures: the study on 150 samples divided into 135patients with thyroid cancer and represented the group of patients (Patients Group) and 15 blood samples from healthy people was set control (Control Group) extracted DNA for samples and detect two Mutations BRAF_475_mu and BRAF_476_mu for BRAF gene three Mutations HRAS_483_mu HRAS_486_mu and HRAS_499_mu to HRAS gene and five Mutations NRAS_580_mu, NRAS_584_mu, NRAS_573_MU, NRAS_562_mu and NRAS_564_mu to NRAS gene by using the TaqMan™ Mutation Detection Assays.

Results:

There are Mutation in 42 patients condition limitations are as follows (c.1799_1800TG>AA V600E c.1799T>A V600E) and mutations in 27 patient's condition palaces (Q61K , Q61R, G13V, G12C, G12D) and mutations in10 patient's condition palaces (G12V,G13R, Q61R). While only 4 patients for RET gene difference in the analysis of the genetic mutation. At comparable with the genetic mutation of the control group. In this study suggests that there is a link between the occurrence of mutations in this genes and the status of thyroid cancer.