Determination of Interleukin-6 and Interleukin-10 Promoter Region Gene Polymorphisms in Chronic Lymphoid Leukemia Patients

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Objective: Leukemia is a malignant disease which is caused by bone marrow's lymphopoietic or hematopoietic stem cells. A characterized blood disease, leukemia's etiology is not completely known which is caused normal myloid or lymphoid hematopoezin on the specific stage as a result of pause and clonal reproduction, neoplastic cells' bone marrow. Leukemia is classifled by acute or chronic (separated into subgroups by the appearance under the microscope) and propagation and development characteristics of tumor. Choronic lymphocyte leukemia (CLL), cancer cells located in bone narrow, blood and lymph nodes. CLL is the %30 of the all leukemia.

Material and Methods : Cytokines are a group of proteins and peptides that are produced in animal and plant cells and that allow cells to communicate with each other. Cell surface perform their tasks through cytokines receptors. A significant proportion of the cytokines secreted from the immune system which are called interleukins and their main tasks is to stimulate the immune system cells. Inflammatory responses as interleukin- 6 (IL6), interleukin- 10 (IL10) initate to carcinogenesis by damaging DNA, stimulating angiogenesis and cell proliferation, and inhibiting apoptosis.

Previous studies on the promoter regions of the IL 10 and IL 6 genes in different cancer types determined that have linked these polymorphisms to these cancer types.

Result : As a result of the work done, miRNA and polymorphism can be associate with CLL. And in this study will be revealed how this affects patients with chronic lymphocyte leukemia and can it be a factor for in early diagnosis and treatment..

Conclusion : The results of this study, we are going to be associated IL-6 and IL-10 polymorphism with CLL patients. However, these polymorphisms are used as markers for early diagnosis and molecular analysis of all foreseen to be contributed to the development.

Key weords : CLL, IL-6, IL-10, DNA