

Investigation of Relationship Between TGF beta1 Gene and Multiple Sclerosis Disease

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Multiple sclerosis (MS) is a neurodegenerative and auto immune disease of the central nervous system (CNS) characterized by inflammation, demyelination, axonal damage and gliosis.

The main cause of Ms is still unclear but studies are confirmed the role of environmental and genetic factors is MS etiology. Researches shows that the risk of acquiring Ms is higher in relatives of a person with the disease than in the general population.

In this study 21 patients with Ms disease and 21 people as control group were investigated. First, total RNA was extracted from peripheral blood leukocytes of normal and patient groups and then cDNA was synthesized. The expression level of TGF - b1 gene was quantified by Real - time PCR. The results showed that expression level of TGF b1 in patients is upper than the one in normal people ($p=0.015$). This investigate approved the studies from other scientists.

According to this study, we suggest that TGF -b1 can be used as biomarker for early diagnosis of MS. However, more researches are necessary to reach this goal.

Key words: Multiple Sclerosis, Real time PCR, TGF beta 1