

cd95l in multiple sclerosis patients: results from a case-control study

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Introduction : Evidence exist that apoptotic elimination of autoreactive T lymphocyte is defective in multiple sclerosis (MS). T cells apoptosis is an important mechanism controlling immune tolerance. Failure in this process has been shown to contribute to the etiopathogenesis of Multiple sclerosis (MS). One of the most studied molecules in this context is the Fas-L, is thought to inhibit Fas-Fas ligand (Fas-L) binding and block Fas-mediated apoptosis.

Method : In this case-control study, CD95L (Fas-L) mRNA gene expression has been measured in peripheral blood of 50 Multiple sclerosis patients and 50 normal age and sex matched using quantitative Taqman Real-Time PCR (qRT-PCR) methods with Master Mix reaction for probe. HPRT1 was used as housekeeping gene. At last the results analyzed by Linreg and Rest software.

Results : CD95L gene expression in patients with MS in comparison with controls did not report significant reduction. (P-value: 0.197). Moreover, analysis between male and female did not show a significant reduction, too. (P-value (F): 0.156 P-value (M): 0.142).

Conclusion : Although there were no significant reduction and differences in CD95L gene expression, however, the importance of apoptosis cascade in the etiology of the autoimmune disease has not diminished. It is recommended that further study with more participant be repeated, besides, other genes involve in this pathway be evaluated.

Key words: Multiple Sclerosis, CD95L, gene expression