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Poster Presentation

Increased Proportion of Tc17 and Th17 Cells and their Significant Reduction after Thymectomy may be Related to Disease Progression in Myastenia Gravis

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Abstract

Myasthenia gravis (MG) is an autoimmune disease mediated by auto-antibodies against the neuromuscular junction. The thymus has an important role in the pathogenesis of MG because most of the patients have thymic pathology and thymectomy (TE) can reduce the severity of the disease. In the present study, the frequency of Th17 and Tc17 cells were studied in MG patients (pre and 6 months post-TE) and healthy controls. We recruited 12 MG patients from the Shariati Hospital, Tehran, Iran, and the Alzahra Hospital, Isfahan, Iran, and 12 age- and sex-matched HC from the outpatient service of our institution (Department of Immunology, Isfahan Medical School, Isfahan, Iran) from April 2016 to May 2017. The frequency of Tc17 cells in pre-TE patients was significantly higher than HC ($p < 0.05$) and after thymectomy Tc17 cells significantly decreased compared to the pre-TE ($p < 0.05$). The frequency of Th17 cells in pre-TE patients was significantly higher than HC ($p < 0.05$) and after thymectomy Th17 cells significantly decreased compared to the pre-TE ($p < 0.05$). Our findings indicated a possible role of Tc17 and Th17 in MG pathogenesis.

Keywords: Myasthenia Gravis, Thymectomy, Th17, Tc17

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