Kliuchnikova A.,

Candidate of Biological Sciences, Senior Research Specialist at the Department of Neuroimmunology, State Institution Institute of Neurosurgery named after A.P. Romodanov of AMS of Ukraine

Lisyaniy N.,

Doctor of Medical Sciences, Corresponding Member of National Academy of Medical Sciences of Ukraine, Chief of the Department of Neuroimmunology, State Institution Institute of Neurosurgery named after A.P. Romodanov of AMS of Ukraine

THE ROLE OF DIFFERENT SUBPOPULATIONS OF IMMUNE CELLS IN ANTIGEN PRESENTATION AND FORMATION OF IMMUNE RESPONSE (LITERATURE REVIEW)

This review describes subpopulations of cells of the immune system and emphasizes their role in antigen presentation and induction of immune response according to modern ideas. T-cell populations, specifically, T-helper cells, are among key players in the processes occurring in the body following exposure to a foreign antigen. Present review article concerns Th–cells naïve subpopulations, central 0-subpopulations, Th-9, -22, CD4 and CD4 doublepositive T-cells. Their role and functional significance is discussed in various pathological conditions. At present time, there are

convincing data about specific arrays of membrane molecules, transcription factors, and production of specific mediators typical to either of these subpopulations. T-cell populations, specifically T-helper cells, are among key players in the processes occurring in the body following exposure to a foreign antigen.

These T-cell subtypes were characterized both phenotypically and functionally. Application of these markers in laboratory studies will certainly improve diagnostic quality when evaluating functional alterations of immune system and adequacy of prescribed immunotherapy.