CLAUDIN-1 AND OCCLUDIN IN PERIPHERAL NERVE OF PATIENTS WITH DEMYELINATING PERIPHERAL NEUROPATHIES

E. Manole[1,3], **L.C. Ceafalan**[1,2], G. Gaina[1,3], L.M. Popescu[1], O.A. Bajenaru[2,4], I. Mindruta[2,4], A. Ene[4], B.O. Popescu[1,2,4]

[1]*'Victor Babeș' National Institute of Pathology, Bucharest, Romania*

[2]*'Carol Davila' University of Medicine and Pharmacy, Bucharest, Romania*

[3]*University of Bucharest, Department of Biochemistry and Molecular Biology*

[4]*University Hospital Bucharest, Romania*

In the last years, there are few studies to show the role of the tight junctions in human peripheral nerve. This type of junctions is found between adjacent apposed membranes of myelinating Schwann cells, in the perineurial cells and in the endothelial cells (in the epi-, peri- and endoneurium vessels). We investigated the presence of Claudin-1 and Occludin in peripheral nerve biopsy of patients with neuropathies with demyelination by immunostaining (immunohistochemistry and immunofluorescence labeling) and Western blot. We found Claudin-1 in the tight junctions of the perineurial cells and in the autotypic junctions of the Schwann cells of the patients with demyelinating neuroparthies. Occludin was present mostly in the tight junctions of perineurial cells and endothelial cells and with a faintly immunostaining in autotypic junctions of Schwann cells.