ANTI-GANGLIOSIDE ANTIBODIES IN PATIENTS WITH DEMYLINATING DISORDERS

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Multiple Sclerosis (MS) and Guillain-Baré Syndrome (GBS) are inflammatory and demyelinating disorders, likely to be of autoimmune etiology, which attack the central nervous system (CNS) and peripheral nerves, respectively. In addition to the altered antibody response in these diseases, cellular mediated immune could also be implicated in the pathogenesis. Myelin seems to be the target of the immune responses. Auto-antibody (ab) produced recognize specific targets in CNS and may represent an important cause of tissue injury in MS. Gangliosides (Gg) constitute piece of cellular membrane and are considered autoantigen in different neurological disease. We investigated whether the presence of ac anti-Gg in sera of patient with MS and GBS was associated with clinical presentation of these diseases. Nine patients diagnosed with MS, 41 patients with GBS and 34 controls were studied. ELISA was performed to determine the presence of anti-GM1 antibody of IgG Class. 26.8% of patients with GBS presented Ac-GM1 IgG, whereas none of the patients with MS or health controls presented anti-ganglioside antibodies. Ac-GM1 IgG in patients with GBS was associated with distinct clinical presentation. Additional studies with a greater sample and different stage of MS disease patients are needed to determine whether anti-ganglioside antibodies could have a role in patients with MS, since levels of these antibodies can vary even in diseases where a potential pathogenic role has been reported.

Key – words: demylinating disorders**,** Multiple Sclerosis, autoantigen