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Comparing neuromyelitis optica and multiple sclerosis severity: is there a difference?

Comparando a neuromielite óptica e a esclerose múltipla quanto à gravidade: há diferença?

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The discovery of the antibody to aquaporin 4, named IgG-NMO, permitted the differential diagnosis between multiple sclerosis (MS) and neuromyelitis optica (NMO). It renewed the researchers' interest on the study of NMO, specially because this disease shares many clinical and radiologic aspects with MS[1].

The positivity for IgG-NMO antibody, by itself, justified admitting NMO as a nosologic entity different from MS, but aroused challenges. As these two diseases integrated during a long time the same nosologic complex, their distinction demanded the identification of other differential parameters related to clinical evolution, treatment and prognostic[2].

Within the differences between NMO and MS, the researches pointed out greater prevalence of NMO in non-caucasian populations, older age of onset although it may occur in extreme ages, as well as a rare primary or secondary progression[2].

As to radiologic findings, compared to MS, NMO presents fewer alterations in grey matter, which may suggest less severity[3]. Nevertheless, the optical coherence tomography shows more severe alterations in NMO than in MS, because a thinner retinian cells layer indicates widespread axonal injury[2,4].

With respect to cerebrospinal fluid, the oligoclonal bands are less frequent in NMO and are associated to greater number of cells and neurofilaments[5].

Disability of NMO patients is usually more severe than in MS, due to relapses' severity followed by less recovery[4,6].

Within this publication, Bichuetti et al.[7] add an interesting approach to all these evidences by comparing clinic evolution of NMO patients to those of MS. Their contribution to the study of this disease consists on the presentation of other differential aspects.

By analyzing expanded disability status scale evolution, annualized rate relapses and progression index, the authors concluded that NMO is more severe than MS, and emphasize early diagnosis and therapeutic management.

The fundamental aspect of this study compared to international researches was the possibility to analyze clinic evolution of those patients in a single center, which assured greater accuracy to data.

Nevertheless, one must wait until these findings can be proved by other studies, so they can integrate the evidences presented since the IgG-NMO discovery, in 2004.

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