

Improvement to baseline after plasma exchange in spinal attacks associated with neuromyelitis optica

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Sir,

The article by Abboud et al. investigating the outcome of neuromyelitis optica (NMO) relapses treated by steroids alone or in association with plasma exchange (PLEX)¹ demonstrates a better outcome in PLEX-treated attacks with a higher proportion of patients improving to baseline Expanded Disability Status Scale (EDSS): 65% vs 35%. Considering the high level of significance of their results, they conclude that PLEX is efficient whatever the basal impairment.

Using Δ EDSS (late minus basal EDSS), we also obtained favourable results in 96 spinal attacks but statistical significance was not reached with higher levels of basal impairment owing to the small size of these groups.² From a purely methodological point of view, demonstrating this assertion in higher levels of basal impairment would require a larger cohort. We re-examined our data with the stringent parameter of ‘improvement to baseline’ (Table 1) used by Abboud et al. and the results were largely similar: A higher proportion of patients improved to baseline in the PLEX-treated group, but there was only a trend after stratification on baseline level owing to the small groups. Therefore, the increased probability of recovery by using the combination of PLEX

and steroids in severe NMO attacks is better demonstrated in patients with no or moderate basal impairment, and seems probable in the sub-group of basally impaired patients.

At the time of our study, immunoglobulin (Ig)G-NMO tests were based on qualitative assessment of indirect immunofluorescence, which was much less sensitive than the present technique. All the survivors were recently tested again and 19/20 tested positive for IgG-NMO, corresponding to 38/43 of the 96 attacks. Serological results were unknown for the earliest patients who had died before the test became available, although they were clinically typical of relapsing NMO and three of them were pathologically confirmed by biopsy or autopsy.³ Therefore our cohort was reliably composed of NMO patients and all of our patients now also fulfil the most recent NMO criteria.⁴ We acknowledge that anti-myelin oligodendrocyte glycoprotein (MOG) positivity cannot be excluded in some of these older NMO patients, although several studies have failed to demonstrate any prognostic value of IgG-NMO seropositivity in the PLEX context.⁵

Although relapses are improved by the combination of treatments, a stepwise increase in EDSS remains a common outcome, as reflected by the low proportion

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Table 1. Probability of regaining baseline EDSS after spinal attack in NMO (data from Bonnan et al.²).

	Full cohort (<i>n</i> = 96)	Basal EDSS		
		Null (<i>n</i> = 24)	1–5.5 (<i>n</i> = 39)	≥6.0 (<i>n</i> = 33)
Steroids (<i>n</i> = 67)	13% (9/67)	0% (0/17)	19% (5/26)	16% (4/24)
Steroids + PLEX (<i>n</i> = 29)	34% (10/29)	28% (2/7)	46% (6/13)	22% (2/9)
<i>p</i> ^a	0.02	0.07	0.13	0.53

^aChi² with Fisher’s correction.
EDSS: Expanded Disability Status Scale; NMO: neuromyelitis optica.



of patients improving to baseline. Data suggest that a treatment given acutely may lessen the severity of an attack.^{6,7} The next step would be to examine the influence of delay from onset to treatment upon the late clinical outcome.

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