

Rehabilitation should be prescribed acutely in motor relapses – Yes

Lousin Moumdjian and Una Nedeljkovic

The administration of corticosteroids is the standard protocol for treating motor relapses in persons with multiple sclerosis, yet despite this treatment, reduced functional ability and residual disability remains present in multiple sclerosis (MS) patients after a relapse.¹ A survey conducted in North America has shown that persons with multiple sclerosis (PwMS) reported fatigue, weakness of lower and upper extremities, sensory symptoms and problems walking as common relapse symptoms.² The above impose physical, social and psychological limitations and may explain the lower quality of life experienced by PwMS after a relapse.³ Given the combination of the negative effects patients experience and the residual disability remaining due to the relapse, the inclusion of multidisciplinary rehabilitation has been advocated for post-relapse care in PwMS, to target functional and beyond functional limitations experienced by PwMS.⁴

Nevertheless, only few studies have investigated the effect of multidisciplinary rehabilitation in PwMS following a relapse. Yet, these studies provided evidence in favour of prescribing rehabilitation after acute MS relapses. To our best knowledge, three studies applying a randomised control trial design assessed the effects of post-relapse rehabilitation in PwMS following an acute relapse.^{5–7} In all three studies, this was provided as multidisciplinary rehabilitation, although with differences in structure and content.

In the study of Craig et al.,⁷ participants were included after the onset of a relapse between 6 and 48 days. Patients in both groups undertook corticosteroid treatment, while patients in the experimental group further received a planned multidisciplinary assessment. This was followed by treatment, and advice for continued self-management or referral after discharge. The authors reported that planned and focused multidisciplinary rehabilitation care during steroid treatment of MS relapse was beneficial in terms of motor function, disability and aspects of quality of life, measured at 3 months after the relapse.⁷

In the studies of Nedeljkovic and colleagues,^{5,6} multidisciplinary rehabilitation counselling was applied during corticosteroid therapy. This was followed by an intensive acute physical rehabilitation programme starting 6–9 days post-relapse in an outpatient settings. The rehabilitation programme described in the studies were individually tailored. The programme included training of strength, balance, coordination and mobility. Consultation with other specialties (e.g. neurologists, psychologists, social workers and MS specialised nurses) were provided upon assessment. The authors reported an improvement of quality of life, physical activity and self-efficacy in PwMS measured at 1 and 3 months post-relapse in favour of the group who received the multidisciplinary rehabilitation.^{5,6} In addition, no negative or adverse effects were reported in the group who received the multidisciplinary rehabilitation.^{5,6} Furthermore, it is noteworthy to mention evidence provided by retrospectively studies, which reported beneficial effects of post-relapse inpatient rehabilitation in PwMS.⁸

Despite the limited number of studies, positive effects on physical functioning and quality of life were found in PwMS who had multidisciplinary rehabilitation prescribed during and after the corticosteroid treatment following a relapse. Yet, a survey conducted in 2019 in America and Canada reported that only one-third of the patient population they studied used rehabilitation services after a relapse. Their analysis revealed that the reasons PwMS sought rehabilitation were age, self-reported quality of life, and the presence of health care providers.⁹

In this respect, further generation of evidence is warranted. On one hand, to standardise consensus and guidelines for prescribing multidisciplinary rehabilitation following acute relapses. An aspect that can assist the development of such guidelines is standardising definitions of various time points of acute relapse. For an example, the corticosteroid treatment time is an immediate acute time point, where it assumed to require a different content of multidisciplinary rehabilitation

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Correspondence to:

L. Moumdjian
REVAL Rehabilitation
Research Center, Faculty
of Rehabilitation Sciences,
Hasselt University, 3500
Hasselt, Belgium.
lousin.moumdjian@uhasselt.be

Lousin Moumdjian
REVAL Rehabilitation
Research Center, Faculty
of Rehabilitation Sciences,
Hasselt University, Hasselt,
Belgium; IPEM – Institute
of Psychoacoustics and
Electronic Music, Faculty of
Arts and Philosophy, Ghent
University, Gent, Belgium

Una Nedeljkovic
Clinic for Physical Medicine
and Rehabilitation, Clinical
Center of Serbia, Belgrade,
Serbia; School of Medicine,
University of Belgrade,
Belgrade, Serbia

compared to following shorter and longer timeframes. In addition, investigations are needed in order to understand the mechanisms of which the different components of the multidisciplinary rehabilitation affects relapses. An example to illustrate this can be shown in terms of physical rehabilitation by the means of exercise. Authors of a perspective review have proposed conceptual mechanisms of how exercise can affect relapses in PwMS.¹⁰ The conceptual proposal forms a foundation to generate further evidence. Moreover, evidence generation needs to take into account understanding the experience of PwMS, in terms of their needs and limitations following an acute relapse along different timeframes.

In conclusion, acute post-relapse rehabilitation in the form of multidisciplinary rehabilitation has been shown to be safe in PwMS, and positive effects have been shown for physical activity and functioning, self-efficacy and quality of life.⁵⁻⁷ The results of the few studies described above endorse the prescription of rehabilitation in acute MS relapse. Further research in terms of accumulating evidence, standardising guidelines and administration possibilities for patients remain warranted, yet essential.

Declaration of Conflicting Interests

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