CO33-003-e
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Introduction Respiratory dysfunction is one of the main causes of morbidity during the course of multiple sclerosis. We distinguish four main causes for respiratory dysfunction: respiratory muscles weakness, deglutition disorders, sleep disordered breathing, and control of breathing abnormalities [1].

Objective The main purpose of this study was to describe the respiratory function of MS patients with motor disability.

Materials and methods We conducted a prospective study in MS patients with a walking disability. The respiratory dysfunction was assessed with a pulmonary function tests, using spirometric and plethysmographic measures. The motor respiratory dysfunction was assessed using the vital capacity (VC), in the sitting and upright positions. Maximum inspiratory and expiratory pressures were also measured. We also reviewed the history of associated deglutition and sleep disorders.

Results Over a 2-year period, 81 patients were evaluated. The median EDSS was 8 (IQ 7–8.5), the mean duration of disease was 20 years ± 11.4 and mean time since loss of walking ability 18 years ± 5.3. The average vital capacity was 2.41 L ± 1.08, i.e. 70.7 ± 0.3% of the theoretical value. Fifty-one patients (63%) had a significant decrease of VC (<80%), being considered as severe (VC < 50%) in 23 cases (28%).

Discussion In patients with severe MS, respiratory dysfunction is frequent. Its diagnosis and a better knowledge of its complications could help physicians to provide more specific care.

Keywords Multiple sclerosis; Respiratory dysfunction; Sleep disordered breathing; Deglutition disorders; Pulmonary function testing

Disclosure of interest The authors have not supplied their declaration of conflict of interest.

Reference

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CO33-005-e
Patient reported questionnaires in MS rehabilitation: Testing responsiveness and minimal important difference (MID) of the French version of the multiple sclerosis questionnaire for physiotherapists (MSQPT)
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Background/objectives The Multiple Sclerosis Questionnaire for Physiotherapists (MSQPT) is a German disease-specific self-rating questionnaire that is reliable and valid. The present study’s objective is to evaluate the psychometric properties of the French translation of the MSQPT.

Method The German MSQPT was translated using the same procedure in translating the SF-36 into the different languages. The quality of the translation, the reliability and validity of the French version and the acceptance of the assessment by the physiotherapists were evaluated. A multicenter intervention (pretest n = 5, validation n = 31, test retest n = 16) included the MSQPT, SF-36 and self-administered EDSS. Finally, the treating physiotherapists filled out a questionnaire to estimate the acceptance of the MSQPT.

Results The rating of clearness, everyday speech and conformity of concept of the final translation was high for most items. The final French MSQPT did not show any further problems in the pretest. The validation survey denoted few missing data (MSQPT 0.64%, test-retest 0.09%, SF-36 0.77%). The criterion validity between the MSQPT and the SF-36 was high (activity r = 0.85, participation associated factors compared with social functions, vitality and wellbeing r = 0.47–0.74, pain r = 0.64). The French MSQPT had an internal consistency of 0.84 (Cronbach α). The two main groups had an internal consistency of 0.82 and 0.87. The reliability was high to very high for many items, the activity group (r = 0.93) and the total score (r = 0.95). The participation group had a lower reliability score (r = 0.66). The acceptance of the MSQPT by the treating physiotherapists was high. The physiotherapists rated the MSQPT among other things as simple, comprehensible, efficient, not time-consuming and very useful.

Conclusion The French MSQPT is a well-translated questionnaire with high quality and with psychometric properties comparable to the original German version. The results suggest that the French MSQPT can be used in the evaluation of the physiotherapeutic treatment of persons with MS.

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CO33-004-e
The French version of the multiple sclerosis questionnaire for physiotherapist (MSQPT), a reliable and valid method for the evaluation of the treatment of persons with multiple sclerosis
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Background/objectives The Multiple Sclerosis Questionnaire for Physical Therapists (MSQPT) is a PRO Questionnaire for the evaluation of rehabilitation of persons with multiple sclerosis. The focus of this study is to evaluate the responsiveness and MID of the French Version of the MSQPT.

Methods We used a combined anchor and distribution-based approach with multiple anchors and multiple transition questions. The intervention (n = 31) included MSQPT, HAQUAMS, EDSS, 6-Meter Timed Walking Test, Berg Balance Scale (BBS) and the 6-Minute Walking Test (6MWT). Responsiveness was evaluated using ES, SRM and Modified SRM. The anchor-based and
distribution-based estimates (0.33 and 0.5 SD, SEM, MDC_{90} and MDC_{95}) were calculated. The specificity of the thresholds for change and the correlation between the physical tests and the items and groups of the MSQPT were determined. The relative efficiency between MSQPT and HAQUAMS was estimated.

**Results**

The main ES for deterioration laid between 0.41 and 0.93 and for improvement range from 0.42 to 1.23. The SRM estimates were generally higher than the ES (deterioration 0.89 to 2.14, improvement 1.08 to 2.14). Main modified SRMs ranged from 0.03 to 0.31 and were acceptable. The specificity of the thresholds for change ranged from 0.25 to 0.83. Comparing responsiveness of the German and French MSQPT, the data was not unambiguous, but in general the differences between estimates were small. The correlations between the BBS and 6MWT and the items and groups of the MSQPT were reasonable to high (0.51 to 0.74). The MSQPT seemed to be more efficient than the HAQUAMS in detecting improvement but less efficient in finding deterioration.

**Conclusion**

Due to the small sample size the significance of this survey is limited. The available evidence indicates that the French MSQPT is a responsive PRO questionnaire, with similar psychometric characteristics as the original MSQPT and with adequate MID that may be used as thresholds for change in the treatment of persons with MS.

**Keywords**

Multiple Sclerosis; Rehabilitation; Physiotherapy; Patient-Reported Outcome; Questionnaire; Responsiveness

**Disclosure of interest** The authors have not supplied their declaration of conflict of interest.