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The COMPASS 31 scale: an objective scoring system to assess autonomic symptoms in patients with movement disorders

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Objective

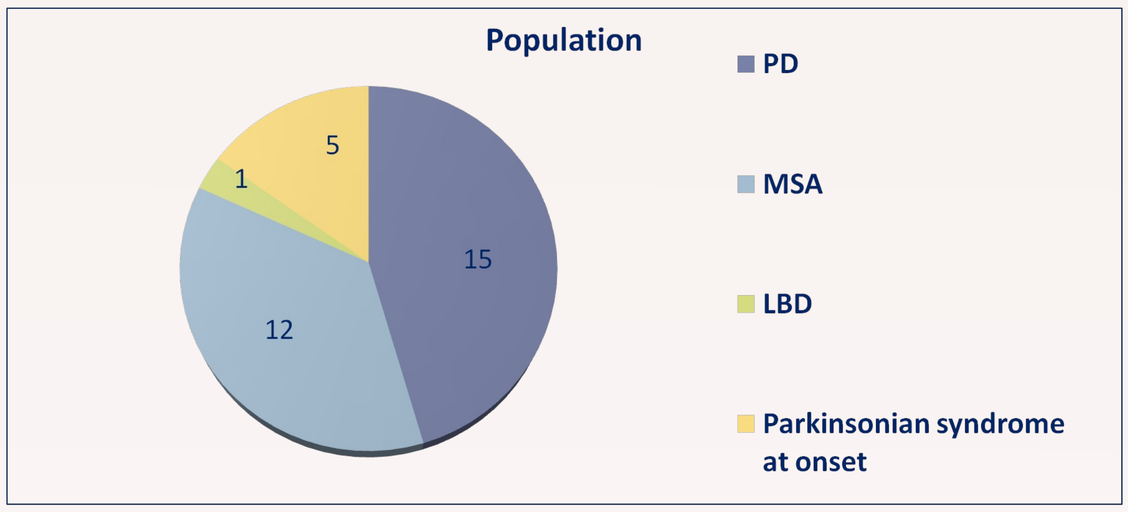
To determine the prevalence of autonomic symptoms in patients referred to the Movement Disorders Centre of our Department, by means of the COMPASS 31 scale, a validated self-assessment instrument. Secondary outcomes were to evaluate the relationship between COMPASS 31 scale scores and disease duration and to compare the overall score and domain scores among groups with a different diagnosis.

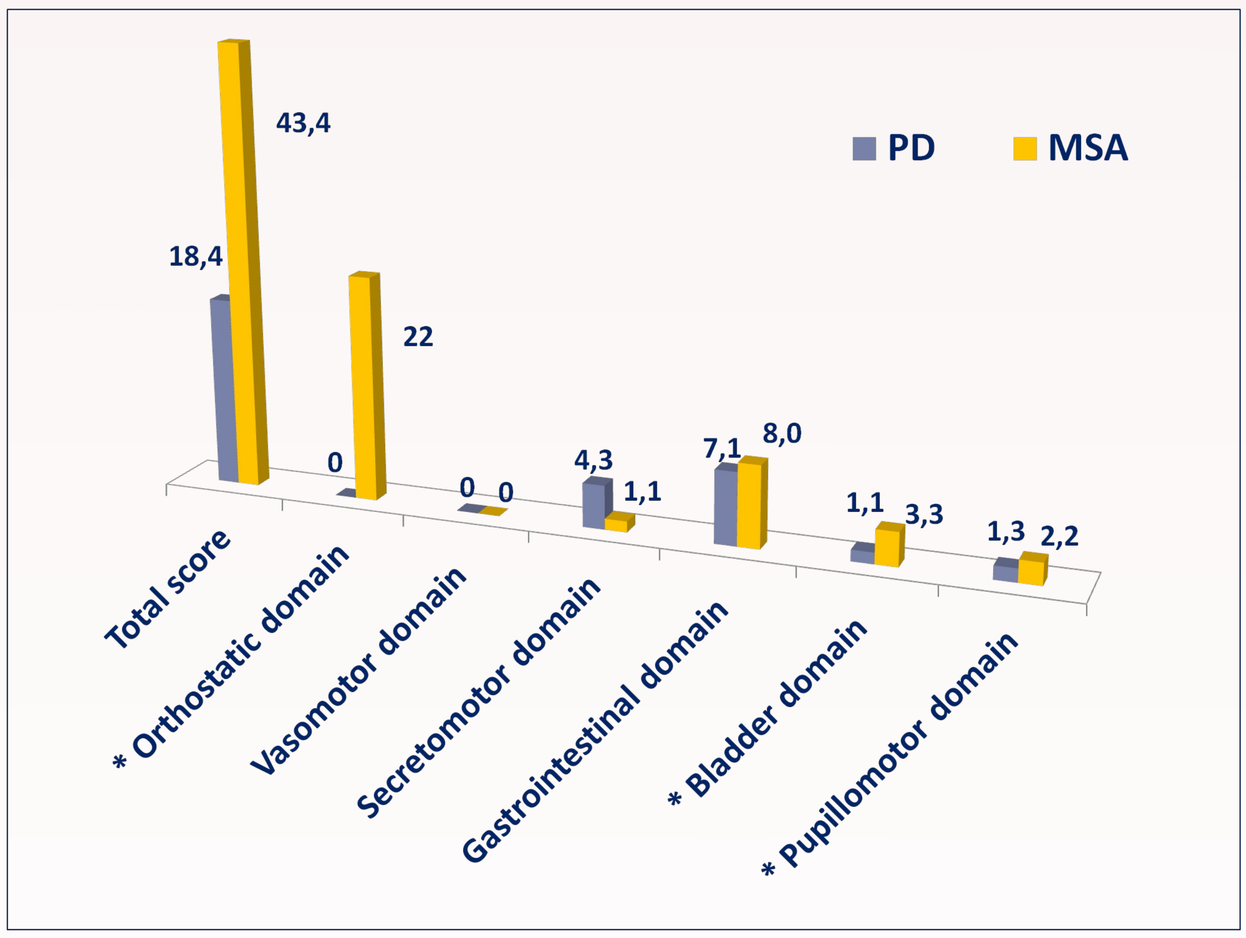
Materials and method

This is a cross-sectional study conducted in our tertiary Movement Disorders Centre. COMPASS 31 was consecutively administered to patients referred to our Department in April 2016. Demographic and clinical data were collected by a movement disorders specialist and diagnoses were established according to current international criteria.
Chi-square test, t-test or Mann–Whitney test were performed to compare categorical and continuous variables among groups, as appropriate. Spearman correlation was performed to assess the relation between total score and disease duration. Data analysis was performed with STATA®, version 14.0. A p-value less than 0.05 (2-sided) was considered significant.

Results

A total of 33 patients were included (18 males and 15 females; mean age 62.45 ± 8.90 years). The median (interquartile range: IQR) of disease duration was 6 (4-10) years. Among these, 15 patients met consensus criteria for Parkinson's disease (PD) (14 for probable and 1 for possible), 12 for multiple system atrophy (MSA) (11 for probable and 1 for possible), 1 for possible Lewy body dementia and 5 for parkinsonian syndrome at onset. The overall median (IQR) score of COMPASS 31 was 27.78 (10.36-37.83; range= 1.89-62.04). The total scale score did not correlate with disease duration (p= 0.19).
Comparing patients with PD and those with MSA, no significant differences in sex and age were found, while the first group showed a longer disease duration compared to the second one [11 (6-17) vs. 6 (3.5-7) years, p=0.0078)]. MSA patients showed a higher total score compared to those with PD [43.36 (29.77-50.54) vs. 18.40 (9.37-35.96), p=0.0318], this difference was attributable to the difference in orthostatic, bladder and pupillomotor domains (p= 0.04, 0.0063 and 0.046 respectively).





Conclusions

Autonomic symptoms are frequent in patients with movement disorders. Higher total scores in MSA patients compared to those with PD were found in this study, confirming the high sensitivity of this scale. COMPASS 31 allows quantifying the degree of autonomic failure, therefore the systematic use of this scoring system in clinical practice could be useful to monitor disease progression and optimize patient management.

Acknowledgements

1. Barone P, Antonini A, Colosimo C, et al.; PRIAMO study group. The PRIAMO study: A multicenter assessment of nonmotor symptoms and their impact on quality of life in Parkinson's disease. Mov Disord 2009 15; 24(11): 1641-9.
2. Colosimo C, Morgante L, Antonini A, et al.; PRIAMO STUDY GROUP. Non-motor symptoms in atypical and secondary parkinsonism: the PRIAMO study. J Neurol. 2010; 257:5-1
3. Pierangeli G, Turrini A, Giannini G, et al. Translation and linguistic validation of the Composite Autonomic Symptom Score COMPASS 31. Neurol Sci 2015; 36: 1897-1902.
4. Singer W, Sletten DM, Mandrekar J, Low PA: Validation of a Refined and Abbreviated Composite Autonomic Symptom Score. Neurology 2013;80(S37.001).