BEHAVIOR OF THE MDS-UPDRS SCALE DURING THE ACUTE L-DOPA TEST

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Introduction: The MDS-UPDRS scale (Movement Disorder Society-2009) keeps the format of the standard UPDRS (Unified-Parkinson’s-Disease-Rating-Scale-2003) but improves many aspects. While the MDS-UPDRS validation process has been exhaustive, performance to detect acute changes arising from the administration of a single dose of L-Dopa has not yet been explored.

Objective-aims: To analyze the performance of the motor section of MDS-UPDRS scale in evaluating response to the L-Dopa Test (LDT); and to determine the optimal cut-off point of score variation to consider a positive response to LDT.

Methods: 64 patients (40 men, 24 women, 68.84 ± 11.62 years old) were assessed using both scales, before and after administration of a 250/25mg L-dopa/carbidopa.

Scores were normalized (0-100%). Pearson's linear correlations were calculated.

The classification variable was the UPDRS-part III score variation (30% cutoff). The MDS-UPDRS scale’s sensitivity and specificity were evaluated using a ROC curve and the optimal cutoff for the MDS-UPDRS variation was determined.

Results: Correlations between scales were highly significant prior-Test (R=0.965, P< 0.001) and during-Test (R=0.968, P< 0.001).

ROC curve showed excellent diagnostic accuracy. The area under the curve was 0.99 (CI = 0.97-1.00, P< 0.001) and the maximum Youden index (Y = 0.905) determined a cutoff of 24.5% variation of the MDS-UPDRS.

Conclusions: We calculated an optimal cutoff for the MDS-UPDRS variation lower than the standard accepted for the UPDRS.

Further studies will be necessary to confirm this finding, and adopt a new cut-off point for the MDS-UPDRS variation as a standard criterion to assess the response to LDT.