VALIDITY OF THE MONTREAL COGNITIVE ASSESSMENT IN THE DETECTION OF COGNITIVE DYSFUNCTION IN HUNTINGTON'S DISEASE

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Introduction: Cognitive dysfunction is common in Huntington's disease (HD) and can occur early in the disease course. No effective screening test exists for its detection.

Aims: The aim of this study was to determine the validity of the Montreal Cognitive Assessment (MoCA) as a cognitive screening test in HD, in comparison with the standard neuropsychological battery.

Methods: Twenty patients with HD and twenty-three normal controls (NC) were matched for age, sex and education. A validated Czech version of the MoCA and the neuropsychological battery consisting of tests of memory, executive functions, psychomotor speed, visuo-constructive functions and scales of depression and anxiety were assessed to determine the concurrent and discriminant validity of the MoCA.

Results: The mean MoCA score was 20.5 ± SD 5.5 in HD and 27.5 ± 2.2 in NC. The MoCA correlated in both samples with the composite score of the neuropsychological battery (r = 0.81, p < 0.001). With the screening and diagnostic cut-off scores determined at < 26 points, the MoCA showed a sensitivity of 94% and a specificity of 84% in the detection of cognitive dysfunction in HD. The area under the receiver operating characteristics (ROC) curve (95% CI) for the MoCA was 0.90 (0.809-0.997), p < 0.001.

Conclusions: The MoCA appears to be a suitable tool for assessing cognitive dysfunction in HD. In comparison with the neuropsychological battery, it demonstrated robust psychometric properties: good internal consistency, concurrent and convergent validity, as well as high discriminant validity in the detection of cognitive dysfunction in HD.