

Saturday

Utility of the INECO Frontal Screening (IFS) and Frontal Assessment Battery (FAB) in detecting executive dysfunction in early-onset cognitive impairment and dementia

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State of the art: The INECO Frontal Screening (IFS) and the Frontal Assessment Battery (FAB) are cognitive screening tools sensitive to executive dysfunction (ED). Both have shown ability to distinguish neurodegenerative disorders from healthy controls and to some extent between dementia subtypes. However, it remains unclear whether they adequately identify ED among early-onset dementia (EOD) patients.

Methodology: Memory clinic patients (N = 196) with symptom onset ≤ 65 years underwent diagnostic workup including neuropsychological assessment, laboratory tests, brain MRI, and neurological examination. We compared the IFS and FAB performance of three patient groups relevant for the initial differential diagnostics: EOD and mild cognitive impairment (MCI) (N=83) including 28 Alzheimer's disease and 9 frontotemporal dementia patients, cognitive impairment due to other causes (CI-other, N=90), and subjective cognitive decline (SCD, N=23).

Results: EOD/MCI group performed worse ($p < .001$) than CI-other and SCD group on IFS and FAB tests. The tests showed similar abilities to distinguish EOD/MCI from other patients (IFS AUC=.74, FAB AUC=.75). In differentiating ED from normal performance, the accuracy of IFS was better (AUC = .80) than that of FAB (AUC = .75). Significant correlations were found between general cognitive impairment level (for IFS, $r = .61$; for FAB, $r = .56$) and several cognitive domains and subtests (for IFS $r = .24 - .59$, for FAB $r = .23 - .52$).

Conclusion: Our results imply that the IFS and FAB tests have discriminatory power also in the working aged patients with different etiologies of cognitive impairment. The IFS detects ED slightly better than the FAB.

Conflicts of interest

N/A