

Mini-Frontal Behavioral Inventory supports early identification of different behavioral phenotypes in the behavioral variant of frontotemporal dementia

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Background and Objective: Frontal Behavioral Inventory (FBI) is a questionnaire designed to quantify behavioral changes in frontotemporal dementia (FTD). Literature showed heterogeneous FBI profiles in FTD vs. Alzheimer's disease (AD) with variable occurrence of positive and negative symptoms. In this study, we constructed a short FBI version (i.e., mini-FBI) with the aim to provide clinicians with a short tool for the identification of early behavioral changes in bvFTD, also facilitating the differential diagnosis with AD.

Material and Methods: 40 bvFTD and 33 AD patients were enrolled. FBI items were selected based on internal consistency and exploratory factor analysis. Convergent validity of mini-FBI was also assessed. A behavioral index (i.e., B-index) representing the balance between positive and negative mini-FBI symptoms was computed in order to analyze its distribution in bvFTD through a cluster analysis and to compare performance among patient groups.

Results: The final version of the mini-FBI included 12 items, showing significant convergent validity with the Neuropsychiatric Inventory scores ($r_p=0.61$, $p<0.001$). Cluster analysis split patients in four clusters. BvFTD were included in three different clusters characterized by prevalent positive symptoms, both positive and negative symptoms, or prevalent negative behavioral alterations, similar to a subset of AD patients. A fourth cluster included only AD patients showing no positive symptoms.

Conclusion: Mini-FBI is a valuable easily administrable questionnaire able to early identify symptoms effectively contributing to the bvFTD behavioral syndrome, aiding clinicians in diagnosis and management.

Conflicts of interest

N/A