

Late onset frontal syndrome: differentiation between Frontotemporal dementia and Primary psychiatric disorder using visual rating scales of atrophy

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State of the art

Frontotemporal dementia (FTD) and primary psychiatric disorders (PPD) may overlap in terms of clinical presentations with behavioral change and altered executive functioning, however the role of brain atrophy in differentiating the two conditions has not been thoroughly investigated. The aim of the study is to identify the discriminative pattern of brain atrophy between FTD and PPD.

Methodology

Among the patients followed in neurology and psychiatry departments of Ospedale Maggiore Policlinico of Milan, we retrospectively selected subjects with frontal lobe symptoms with an age at onset between 40 and 75 and with mild severity at the time of MRI. All the subjects underwent extensive neuropsychological testing, neurological and psychiatric examination. Two rater, blind for all the clinical infomations, applied a protocol of 6 visual rating scales of atrophy and 2 of white matter hyperintensities.

Results

A total of 52 subjects were recruited for the study: 15 FTD, 22 PPD and 15 controls. Compared to PPD, FTD cases showed higher degree of atrophy in left orbitofrontal, anterior cingulate and fronto insula, bilateral anterior and medial temporal and parietal areas. ROC curve analysis showed that left orbitofrontal scale was the most useful in the differentiation between FTD and PPD (AUC 0.88) while left anterior temporal better discriminated between FTD and controls (AUC 0.873). No differences between PPD and controls was found.

Conclusions

Visual rating scales can be useful to discriminate FTD and PPD and the left orbitofrontal scale showed the highest accuracy.

Conflicts of interest

Nothing to disclose