Isolated theory of mind deficits and risk for FTD

A 5-years follow-up

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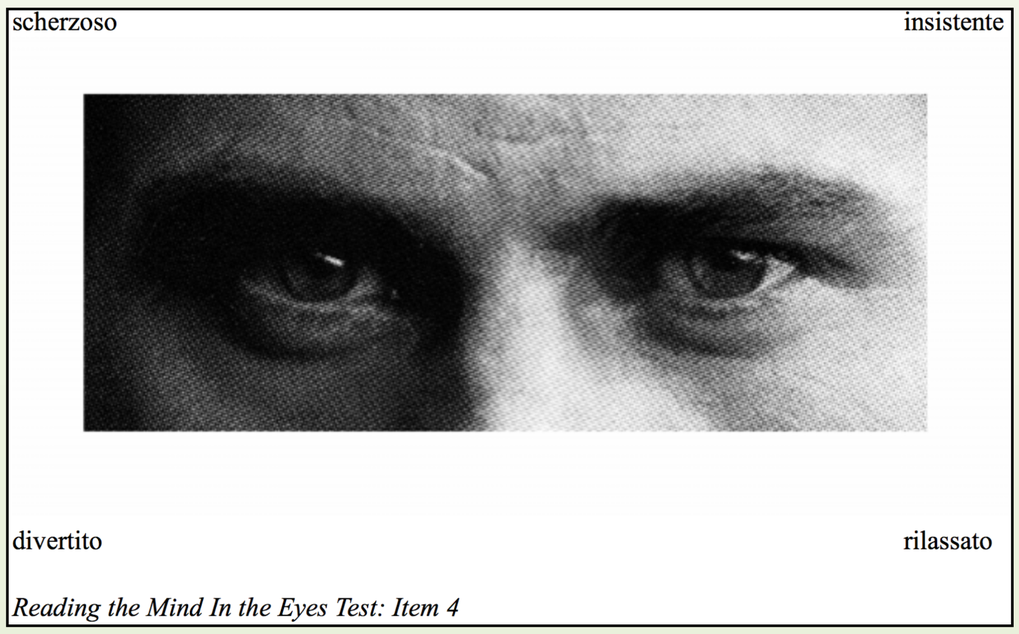
Introduction

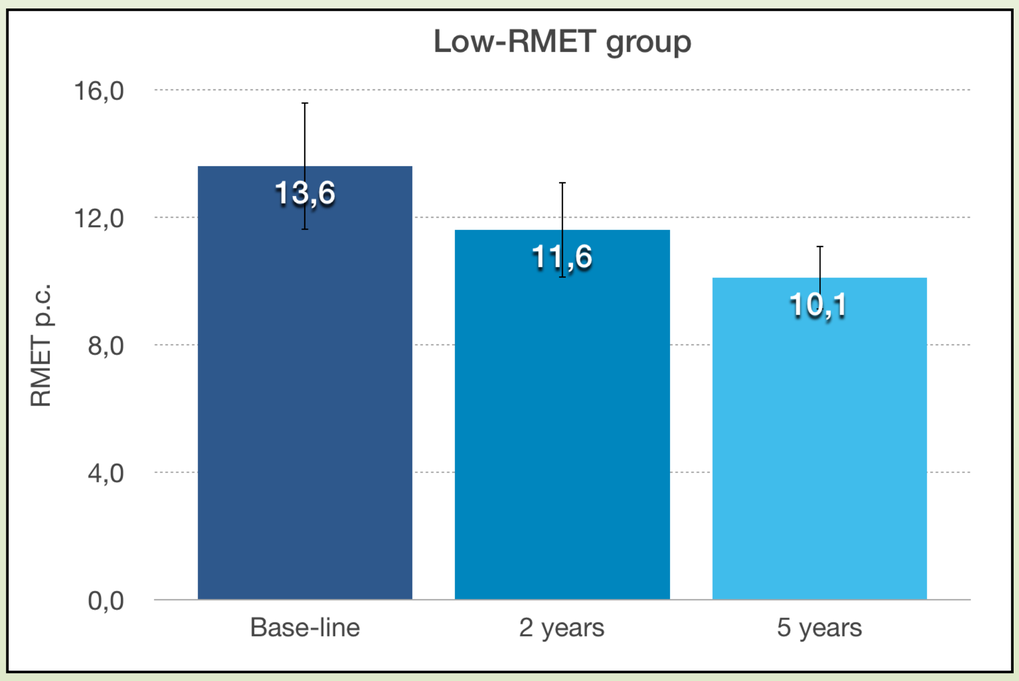
Recent studies suggest that Theory of Mind (ToM) abilities may be involved in the early phases of the behavioural variant of frontotemporal dementia (bvFTD). Personality changes and a reduction in social competencies are considerable aspects of this syndrome, and ToM abilities deficits may be the single evidence in otherwise unimpaired subjects. The aim of this study is to better describe this relation to clarify if the deficit of ToM functions could be an early marker for bvFTD.

Materials And Methods

We recruited 83 subjects with low score in the Reading the Mind in the Eyes Test (RMET) and a control group. These subjects were already selected from a previous study lasted two years (2011-2013) and evaluated recently at a new follow-up, including a neuropsychological assessment. The evaluations took place at the baseline and after 2 and 5 years.
The RMET is a test used to evaluate the Mental State Decoding, showing images related to positive, negative and neutral stimuli.
Each of these subjects (45 female subjects; age: 58±2.5 years; education: 13± 1.2 years) was matched, according to age and education, with two control subjects. Thus, 168 subjects were included in the control group (95 female subjects; age: 57± 2.0 years; education: 12.1±1.5 years).



Reading the Mind In the Eyes Test: Item 4



Results

At two years follow-up, *12 subjects* in the low-RMET group (seven female subjects) and *none* in the control group presented with neuropsychological, behavioural and neuroimaging data compatible with probable bvFTD (RMET correct score 27.6±1.5 at baseline and 27.0±1.3 after 2 years).
At five years, 6 subjects in the low-RMET and 15 in the control group were lost at follow-up. *Six more subjects* from the first group presented with a diagnosis of bvFTD.
The results of the RMET test in this subgroup showed substantial stability RMET (correct recognition score): 13.6±2.0 at baseline and 10.1±1.0 5 years follow-up.

Take-home messages

- ***low RMET subjects are an at-risk population of developing bvFTD***
- ***RMET could be an useful screening test for early forms of bvFTD***

Conclusions

These data related to a 5-years follow-up are in agreement with the previously collected at 2 years, showing a higher frequency of developing bvFTD in a group with reduced ToM abilities. These findings may suggest that an isolated ToM deficit may be an early predictor for the development of this disease, considering that we still have few data about the preclinical stage.
In conclusion, ToM abilities deficits may be considered an at-risk condition for the development of bvFTD; an inclusion of RMET may be considered as an useful weapon to an early detection of a population worthy of a clinical follow-up.

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