

Visual processing speed measures differentiate Mild Cognitive Impairment converter to Alzheimer’s disease related dementia

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- Visual processing speed measures can contribute to the detection of MCI converters to probable Alzheimer’s Disease dementia.
- Non-amnestic neuropsychological measures, such as TMT-A and TMT-B may be useful to differentiate MCI-c from MCI-nc and healthy controls.

Descriptive Data

Variables	Mean score for MCI-c (± SD)	Mean score for MCI-nc (± SD)	Mean score for HC (± SD)
Addenbrooke's Cognitive Examination (ACE-III)	86.2(± 6.93)	89.4 (± 7.19)	93.8 (± 3.22)
Ineco Frontal Screening (IFS)	21.1 (± 3.49)	21.5 (± 3.26)	24.5 (± 2.09)
Age	76.3 (±3.81)	75.4 (±4.21)	75.2 (± 2.71)
Education Years	14 (±3.49)	14.1 (±3.2)	14.6 (± 3.64)
FAQ	1.53 (±2.67)	1.44 (±1.87)	1.31 (± 2.46)
BDI-II	11.6 (±7.07)	11.8 (±7.66)	12.3 (± 6.2)
Follow-up years	6.4 (±1.94)	6.26 (±3.33)	4.99 (± 2.75)
Sex			
- Male	5 (25%)	5 (10%)	1 (7.7%)
- Female	15 (75%)	26 (90%)	12 (92.3%)

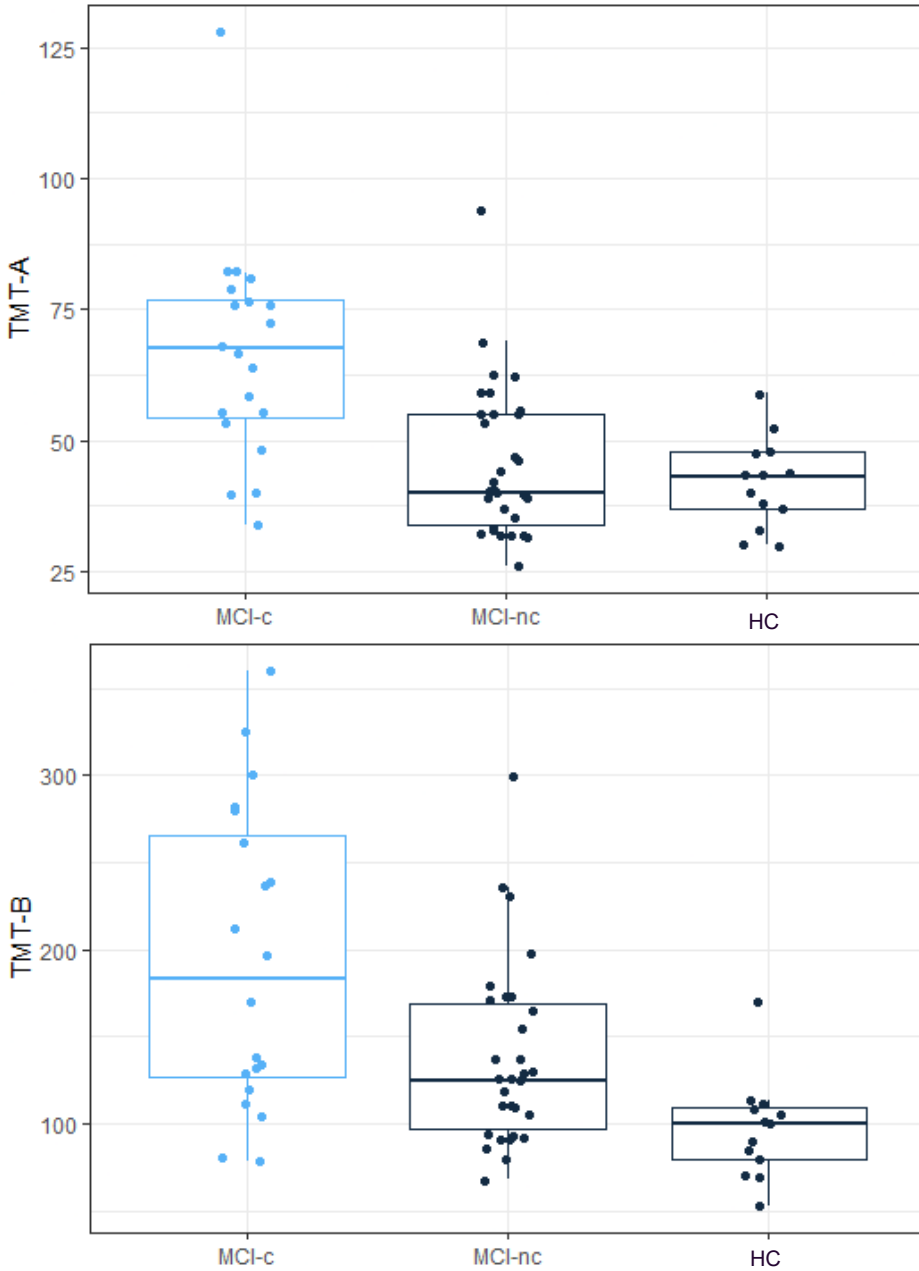
INTRODUCTION

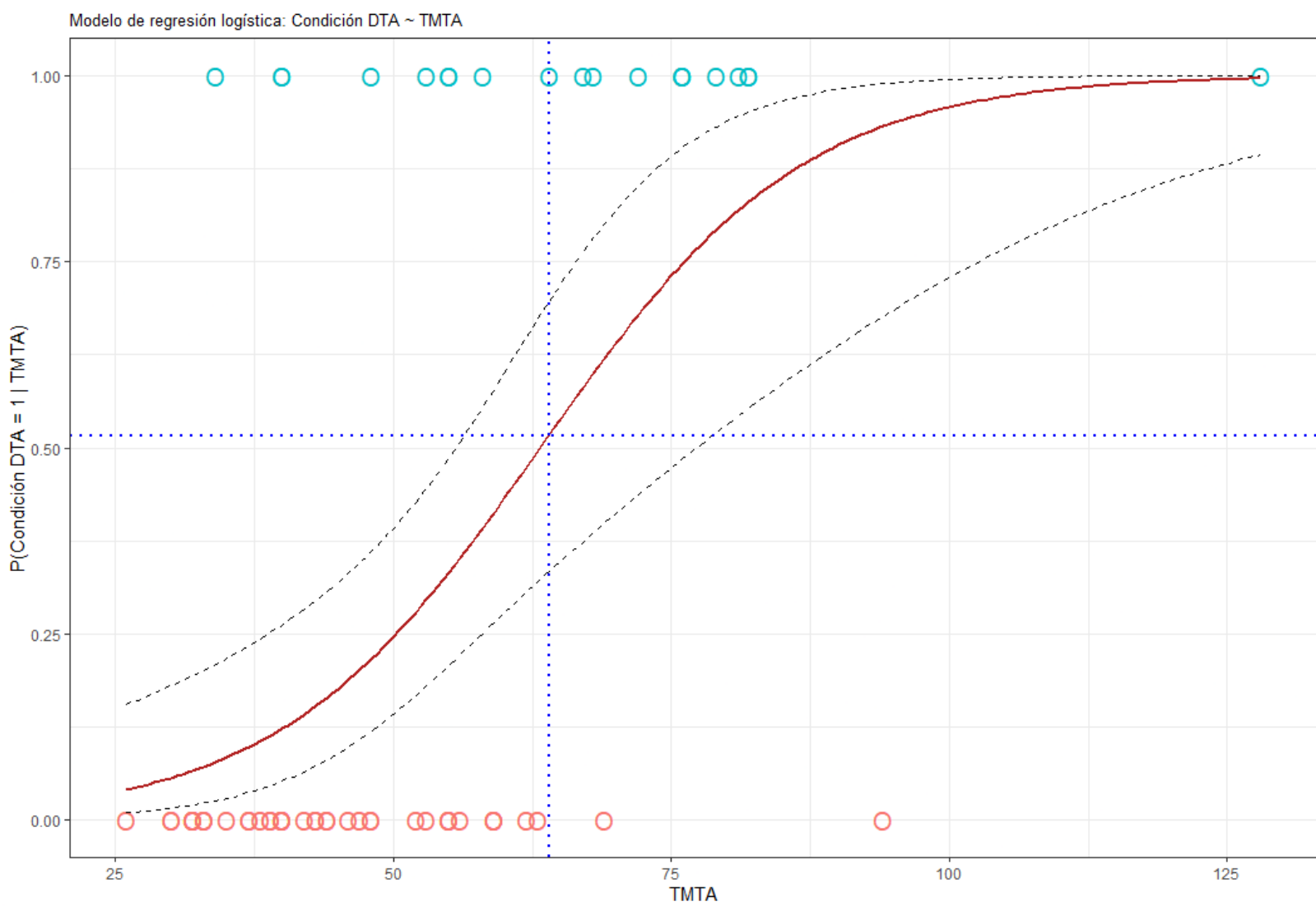
RESULTS

There is evidence about the utility of visual processing speed tests in the detection of patients with mild cognitive impairment who might convert to probable Alzheimer’s disease dementia (MCI-c). Our aim is to analyze differences across these measures in participants with MCI-c in comparison to MCI non converters (MCI-nc) and healthy controls (HC) and to establish a possible threshold for these measures.

Completion time for TMT A was significantly longer for MCI-c in comparison with MCI-nc and HC (p 0.0001 y p 0.0003). The same differences were observed in TMT B (p 0.01, p 0.0003).

Regarding TMT B-A, no differences were observed between MCI-c MCI-nc





In pairwise logistic regression models, only TMTA holds statistical significance against TMTB (p 0.007 vs p 0.58), TMT B-A (p 0.001 vs p 0.58) and ACE III (p 0.0006 vs p 0.15).

METHODS

CONCLUSIONS

REFERENCES

CONTACT

- In this retrospective study, participants were 20 MCI-c, 31 MCI-nc and 13 HC from Favaloro Foundation 's memory clinic, who had two comprehensive cognitive assessments.
- Pairwise group comparisons were used to detect differences in TMT A, B and the difference between TMT B and A (TMT B-A), in screening measures (ACE III and IFS) and across demographic data (age, years of education, follow-up years, depressive symptoms and activities of daily living).

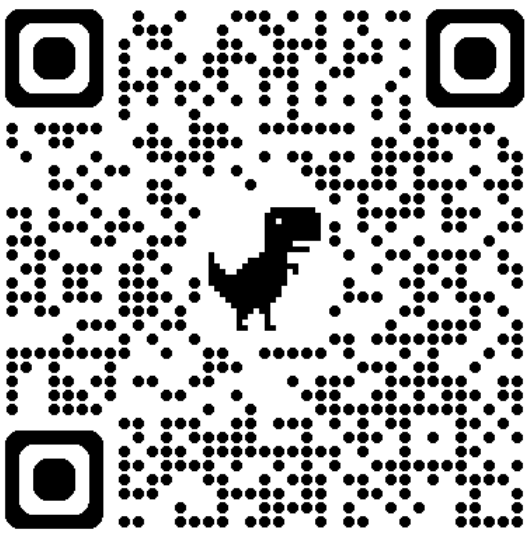
TMT-A and TMT-B may be sensible non-amnestic measures to differentiate MCI-c from MCI-nc and HC. Future studies should consider larger samples and establish comparisons with non AD pathologies to determine this measure's specificity.

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