



Writing speed and letter height distinguish PCA from LPA and controls.

The Writing on the Tablet: Digitized Kinematics Differentiate Writing Process and Product Alterations in Atypical AD

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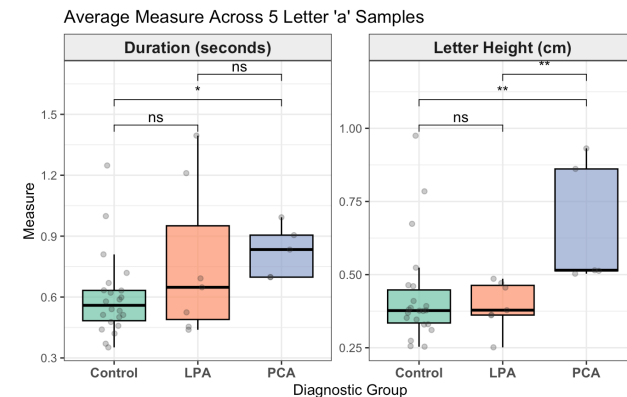
BACKGROUND

- Subtyping dementia phenotypes is essential for accurate prognosis but often requires expensive neuroimaging or subspecialty expertise, limiting access.
- One untapped tool for differential diagnosis may lie in evaluating patterns of handwriting in commonly collected writing samples.
- We sought to empirically quantify these clinical observations using digital kinematic analysis.

METHODS

- Participants included controls (n=22) and patients with LPA (n=7) and PCA (n=5) who wrote the lowercase “a” five times after being shown uppercase “A.”
- We calculated kinematic features of the writing process (e.g., duration) and the written product (i.e., size).
- Groups compared with non-parametric Kruskal-Wallis and post-hoc Dunn tests.

RESULTS



CONCLUSION

- Beyond writing content, attention to the "process" and "product" of handwriting offers an objective, scalable, adjunctive biomarker for the detection of ADRD and possibly ADRD subtyping.

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