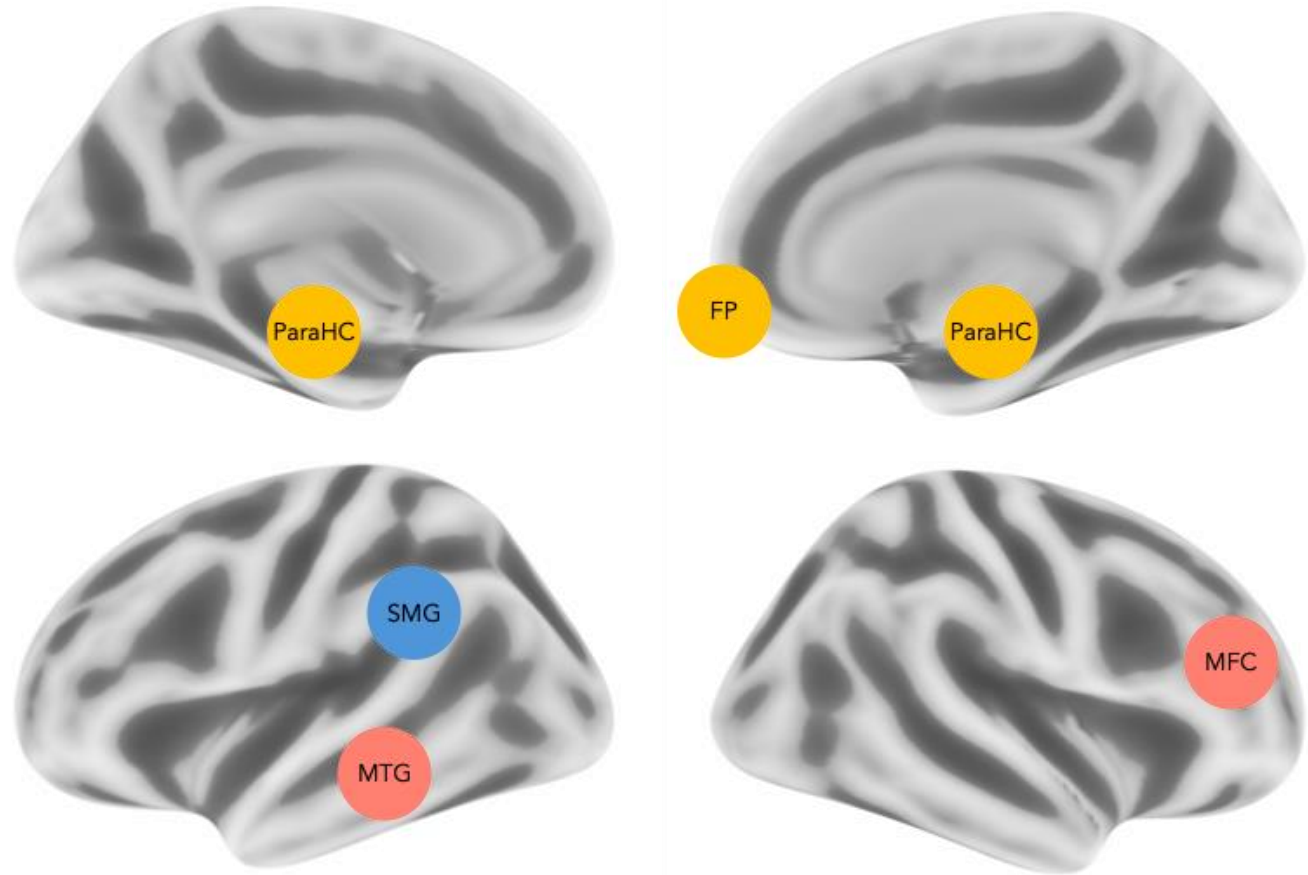


MRI-based cortical thickness analysis to investigating brain morphometry in prodromal dementia with Lewy bodies: preliminary results.

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INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES
The prodromal stage of dementia with Lewy bodies (pro-DLB) has been recently defined; however, the neuroimaging profile of these patients according to different possible clinical onsets (i.e., mild cognitive impairment [MCI], psychiatric onset, and delirium onset) has not yet been thoroughly investigated. This study aims to identify reliable biomarkers of brain alterations in pro-DLB compared with healthy individuals and patients with prodromal Alzheimer’s disease (AD), with a specific focus on the distinct clinical presentations of pro-DLB.	We recruited 54 patients (20 MCI-DLB, 20 MCI-AD, 14 PSY) and 15 healthy controls (HC). All participants underwent structural and functional MRI. A preliminary Surface-Based Morphometry (SBM) analysis was performed using CAT12 within SPM12. Cortical thickness (CTh) differences among groups were assessed via one-way ANOVA.	SBM analysis showed no significant cortical thinning in MCI-DLB or PSY patients compared with healthy controls, with similar CTh patterns across the two pro-DLB subtypes. In contrast, MCI-AD patients exhibited widespread cortical thinning. Relative CTh preservation in MCI-DLB and PSY patients versus MCI-AD was observed in the bilateral parahippocampal gyrus and the right frontal pole. Moreover, MCI-AD patients showed reduced CTh in the left supramarginal gyrus compared with MCI-DLB, and in the right rostral middle frontal cortex and left middle temporal gyrus compared with PSY patients.	This preliminary investigation indicates that CTh measures alone may be insufficient to discriminate pro-DLB from healthy controls or to distinguish among pro-DLB subtypes. Nevertheless, the relative preservation of cortical thickness observed in pro-DLB compared with MCI due to Alzheimer’s disease may serve as a supportive biomarker for distinguishing these clinical groups, although its diagnostic utility would need to be strengthened through integration with more robust biomarkers.	 Reduced CTh in MCI-AD vs MCI-DLB and PSY Reduced CTh in MCI-AD vs MCI-DLB Reduced CTh in MCI-AD vs PSY giulia.zazzaro@uniroma1.it ALZHEIMER’S ASSOCIATION AAIC>26