

[ PICTURES IN CLINICAL MEDICINE ]

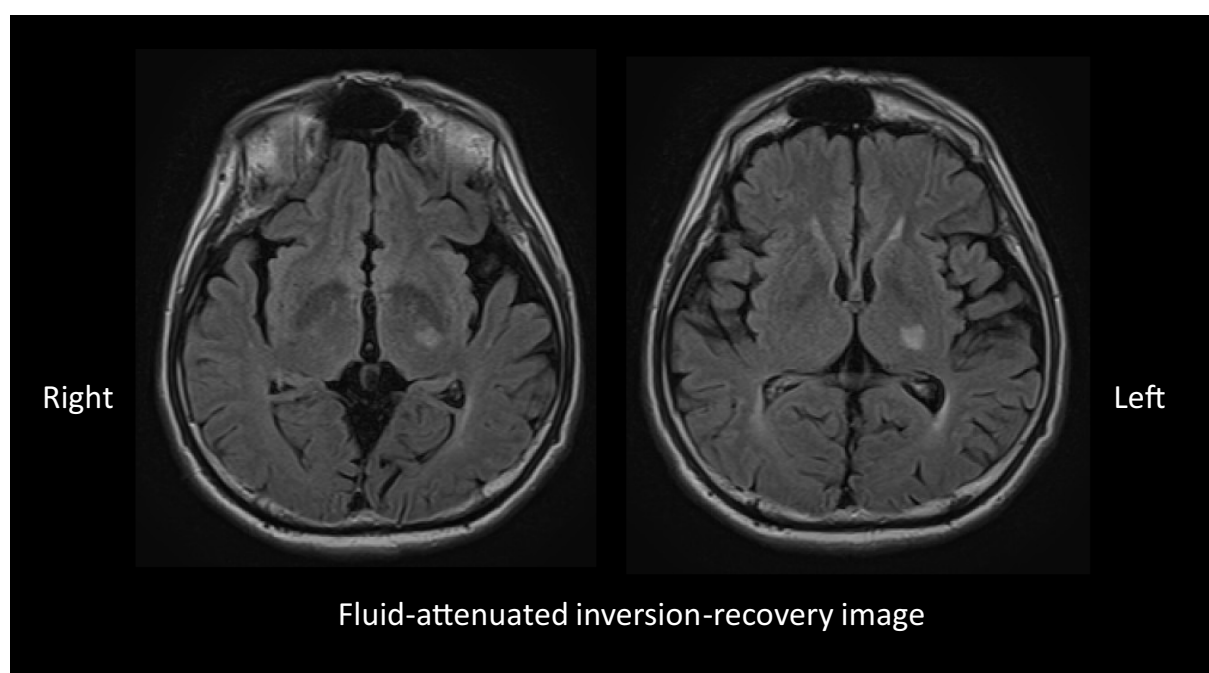
## Agraphia with Mild Alexia Following Left Thalamic Infarction

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**Key words:** agraphia, alexia, thalamus, lateral posterior nucleus

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**Picture 1.**

A 65-year-old right-handed man presented with mild right paralysis and somatosensory disturbance. Magnetic resonance imaging revealed an infarct lesion in the ventral posterolateral and lateral posterior (LP) nuclei of the left thalamus and in the posterior limb of the internal capsule (Picture 1), however, no other lesions were observed. Despite obtaining an improvement in hemiplegia, writing and reading abnormalities persisted. The Standard Language Test of Aphasia revealed remarkable abnormalities in *kana* and *kanji* writing- and mild abnormality in *kanji* reading-related items but none in spoken language (Picture 2). The forward

digit span was 7, indicating no impairment of general attention. In addition, there were signs of acalculia (Picture 2) and mild constructional disability. Agraphia with alexia associated with cortical lesions was caused by damage to the left posterior parietal lobe (PP). The LP is connected to the PP and regulates its function (1). Thus, the thalamic agraphia and alexia (2) observed in this case was likely caused by damage to the LP, resulting in a reduced PP function.

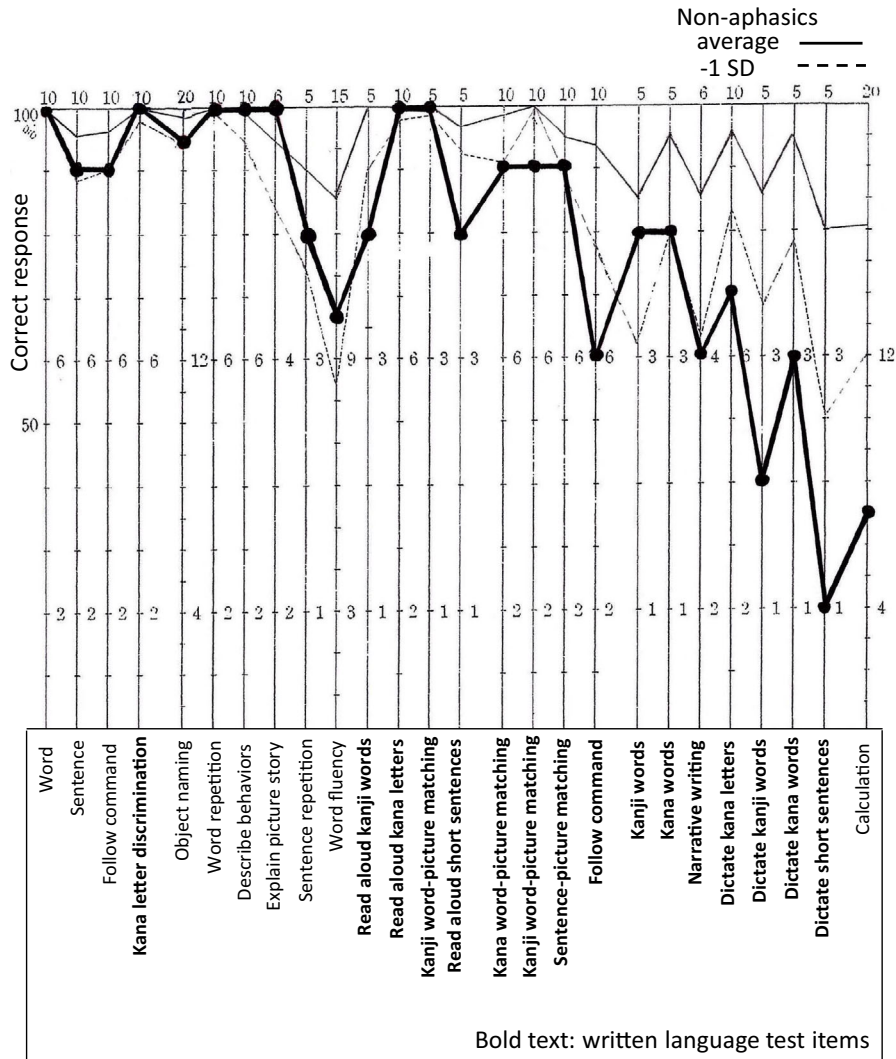
**The authors state that they have no Conflict of Interest (COI).**

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### Profile of Standard Language Test of Aphasia



Picture 2.

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