

## Pure Alexia: Past and Present

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A 54-year-old man suddenly developed an inability to read after renal transplantation. Neurologic examination revealed a right-sided hemianopia, and magnetic resonance imaging showed a left-sided infarct in the occipital lobe and temporal lobe. The cause of the embolus remained unknown.

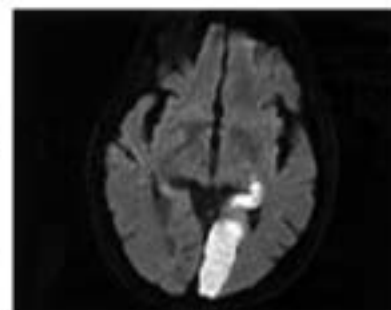
On examination, the patient had near-normal primer-level ability to write dictated words. His reading of letters, words, and numbers was poor and extremely slow when accurate. He was easily able to interpret orally spelled words. A convincing difference between object and letter naming, as expected in pure alexia, was absent, and there was an inability to copy, suggesting visual difficulty, not just a visual-language disconnection. Color dysnomia was noted, but the patient stated that he had always been color-blind.

Our case documents one of the disconnection syndromes, *alexia without agraphia*, as best described by Déjérine in 1892.<sup>1</sup> Alexia without agraphia (pure alexia) is associated with lesions of the left medial occipital lobe and splenium. It occurs because visual input from both occipital areas to the left angular gyrus, where written information is decoded, is lost. Writing and oral spelling are preserved because perisylvian language areas are intact. In some cases, including ours, the “purity” of the alexia can be questioned.<sup>2</sup>

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1. Déjérine J. Contribution a l'étude anatomo-pathologique et clinique des différentes variétés de cécité-verbale. *Mem Soc Biol.* 1892;4:61-90.
2. Nadeau SE, Gonzalez Rothi LJ, Crosson B, eds. *Aphasia and Language: Theory to Practice.* New York, NY: Guilford Press; 2000.

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Writing example from Déjérine's original patient (Monsieur C): "I went on Friday to the Salpêtrière to M Charcot who has examined me for a longtime and showed me to his students telling them that I was afflicted with word blindness." Diffusion-weighted image shows right occipital infarct. Note sudden cutoff in the right posterior cerebral artery on magnetic resonance angiography.