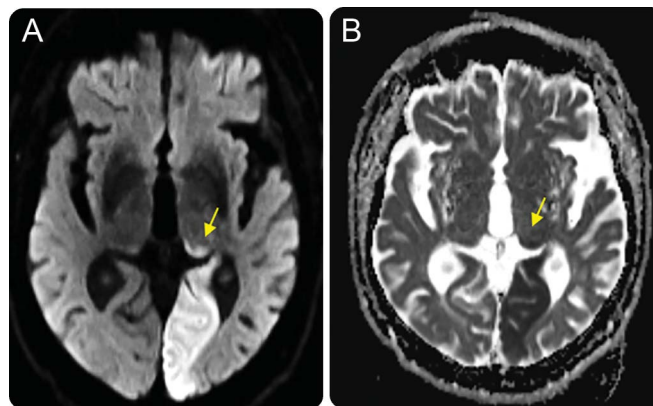


Teaching NeuroImages: Aphasia after infarction of the left pulvinar nucleus

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Figure Axial sections of brain MRI



Confluent area of restricted diffusion (A) in the left occipital lobe with extension to the left pulvinar nucleus with apparent diffusion coefficient correlation (B).

A 79-year-old man, admitted for left knee replacement, complained of right-sided vision loss on postoperative day 3. Examination revealed a right homonymous hemianopsia, fluent speech with semantic paraphasias, and impaired naming and comprehension, with intact repetition. MRI of the brain (figure) showed restricted diffusion affecting the left pulvinar nucleus, without signal abnormality in the cortical language areas.

Isolated posterior thalamic territory infarctions are rare, which may be explained by the dual blood supply of this nucleus, with contributions from the anterior circulation (anterior choroidal artery) and posterior circulation through several branches.¹⁻³ The typical symptoms of thalamic aphasia consist of fluent output, semantic paraphasias, impairment of comprehension, and normal repetition. The relationship among the thalamus, language function, and aphasia is complex and has recently been reviewed by Llano³ and Crosson.⁴

AUTHOR CONTRIBUTIONS

Dr. Bruzzone: acquisition of data, analysis and interpretation, manuscript redaction. Dr. Gill: acquisition of data, analysis and

interpretation. Dr. Ruland: study supervision, revision of the manuscript.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

REFERENCES

1. Morandi X, Brassier G, Darnault P, et al. Microsurgical anatomy of the anterior choroidal artery. *Surg Radiol Anat* 1996; 18:275-280.
2. Takahashi S, Suzuki M, Matsumoto K, et al. Extent and location of cerebral infarcts on multiplanar MR images: correlation with distribution of perforating arteries on cerebral angiograms and on cadaveric microangiograms. *AJR Am J Roentgenol* 1994;163:1215-1222.
3. Llano DA. Functional imaging of the thalamus in language. *Brain Lang* 2013;126:62-72.
4. Crosson B. Thalamic mechanisms in language: a reconsideration based on recent findings and concepts. *Brain Lang* 2013;126:73-88.

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Neurology 2016;87:e82

DOI 10.1212/WNL.0000000000003003

This information is current as of August 22, 2016

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