Teaching NeuroImages: Cranial neuropathies following clival infarction

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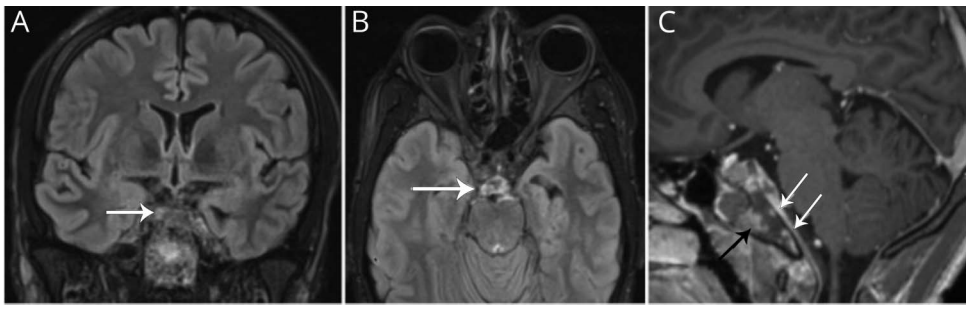
Figure MRI findings of clival infarction



T2 FLAIR MRI sequences reveal heterogeneous edema throughout the clivus (A, B, arrows) with prominence of the retroclival dura and asymmetric thickening (C, arrows). T1 postcontrast imaging demonstrates heterogeneous areas of enhancement within both the bone (C, black arrow) and dura (C, white arrows).

An 18-year-old man with hemoglobin SS-type sickle cell disease presented with acute onset of headaches and horizontal double vision. On examination, he was noted to have a right cranial nerve VI (abducens) palsy. The following day, he also developed an ipsilateral cranial nerve VII (facial) palsy. Neuroimaging was consistent with bony infarction of his clivus secondary to his sickle cell disease and inflammation of the adjacent dura (figure). His presentation and imaging findings are suggestive of transient inflammation of cranial nerves VI and VII as they passed in proximity to the peri-infarct inflammation along the skull base. He received apheresis for elevated sickle hemoglobin levels, and his symptoms resolved within 1 week. His repeat imaging showed resolution of the areas of inflammation and evolution of his bony infarct. His most recent evaluation by neurology at 2 years follow-up was unremarkable, and his symptoms have not recurred.

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links.lww.com/WNL/A948

Author contributions

J. Wong: case report concept, design and critical revision of content, takes responsibility for the data, analyses and interpretation, conduct of the case report. C. Gambrah-Sampaney: design and critical revision of content. L. Adang: case design and critical revision of the content.

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