

Teaching NeuroImages: Pseudopathologic brain parenchymal enhancement due to vascular compression in parotid tumor

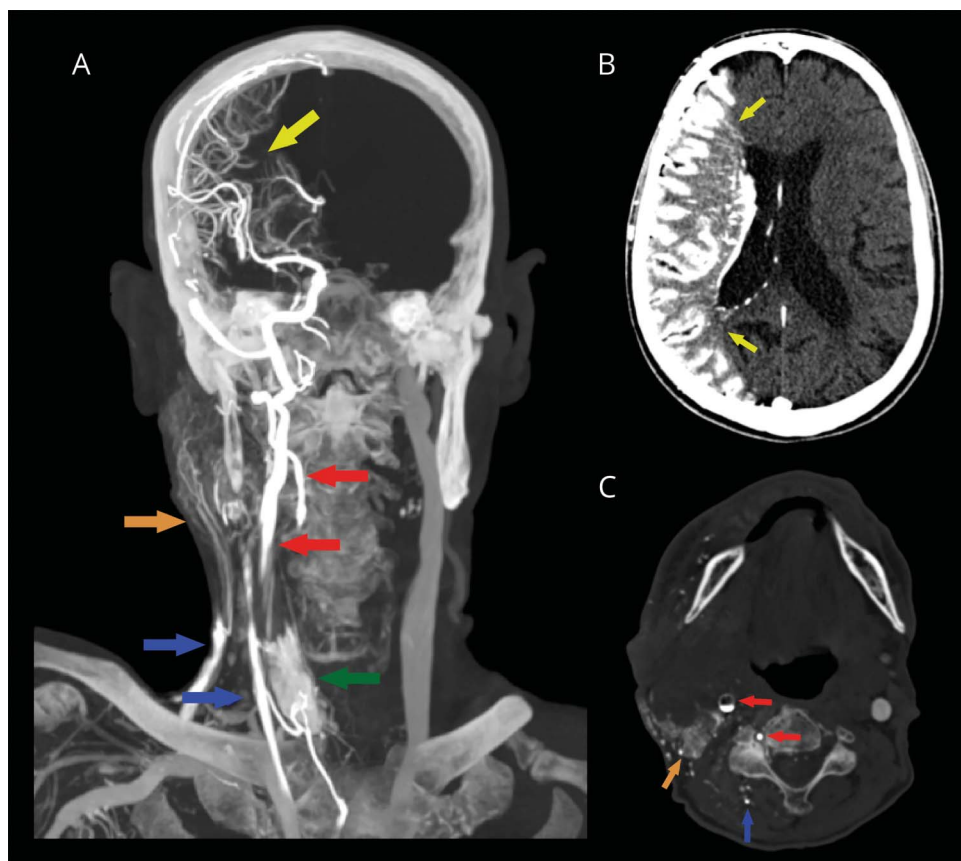
Bernardo Corrêa de Almeida Teixeira, MD, PhD, Marianna Cioni, MD, Debora Brighente Bertholdo, MD, Luiz Otávio de Mattos Coelho, MD, and Dante Luiz Escuissato, MD, PhD

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Correspondence

Dr. Teixeira
berteixeira@gmail.com

Figure 1 CT angiography



Coronal (A) and axial (B, C) CT angiography done by right side antecubital vein injection reveals jugular and cervical veins reflux (blue arrows) reaching the parotid tumor (orange arrow), with opacification of carotid and vertebral arteries (red arrows) and enhancement of intracranial compartment (yellow arrow). Also note hemithyroid contrast reflux (green arrow).

A 74-year-old man with a history of invasive right parotid gland adenocarcinoma presented with acute onset left hemiparesis. CT angiography showed abnormal cervical and intracranial vascular reflux with enhancement of right middle cerebral artery territory (figure 1). Vascular anomalies were suspected but digital subtraction angiography was normal. There was spontaneous resolution of the symptoms and a follow-up CT showed normalization of the imaging findings (figure 2). Pseudopathological brain parenchymal enhancement has been described rarely, usually as an

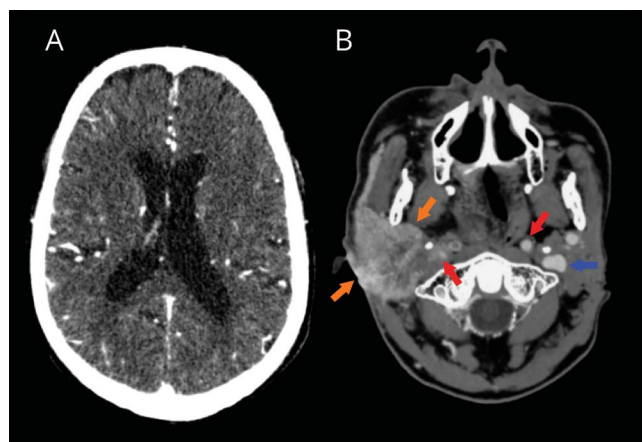
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From the Hospital de Clínicas (B.C.d.A.T., M.C., D.L.E.), Federal University of Paraná; and Clínica Diagnóstico Avançado Por Imagem—DAPI (D.B.B., L.O.d.M.C.), Curitiba, Paraná, Brazil. Go to Neurology.org/N for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

Figure 2 Follow-up CT



Axial CT with contrast done by left side vein injection shows normal brain opacification (A) and right parotid tumor (orange arrows) involving the right internal carotid artery (red arrows) and no discernible right jugular vein (B). Note normal opacification of left side carotid artery (red arrows) and jugular vein (blue arrow).

incidental finding in asymptomatic patients, and mainly related to venous compression, development of collateral vessels, and incompetent venous valves.^{1,2}

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Disclosure

B.C.A. Teixeira, M. Cioni, D. Bertholdo, L.O.M. Coelho, and D.L. Escuissato report no relevant disclosures. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

Appendix Authors

| Name | Location | Contribution |
|---|--|---|
| Bernardo Corrêa de Almeida Teixeira, MD, PhD | Hospital de Clínicas, Paraná, Brazil | Study concept and design, image analysis and interpretation, drafting of the manuscript |
| Marianna Cioni, MD | Hospital de Clínicas, Paraná, Brazil | Study concept and design, image analysis and interpretation, and drafting of the manuscript |
| Debora Brighente Bertholdo, MD | Clínica Diagnóstico Avançado Por Imagem—DAPI, Curitiba, Paraná, Brazil | Image analysis and interpretation |
| Luiz Otávio de Mattos Coelho, MD | Clínica Diagnóstico Avançado Por Imagem—DAPI, Curitiba, Paraná, Brazil | Image analysis and interpretation |
| Dante Luiz Escuissato, MD, PhD | Hospital de Clínicas, Paraná, Brazil | Study concept and design, image analysis and interpretation, drafting of the manuscript, and final approval |

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