Bilateral jugular paragangliomas

A rare cause of raised intracranial pressure

Figure 1 MRI findings

(A) Axial and (B) coronal T1 show enhancing lesions (arrowheads) surrounding both internal jugular veins. (C) Magnetic resonance venography shows occluded internal jugular veins (arrowhead) with collaterals (arrows).

Figure 2 Histopathology

(A) Tumor infiltrating surrounding tissues. (B) Characteristic nests of plump cells (zellballen, arrowheads) with prominent thin-walled vasculature. H&E = hematoxylin and eosin.

A 28-year-old woman presented with a 2-year history of pulsatile tinnitus with recent onset of headaches and bilateral transient visual obscurations. Examination revealed bilateral optic disc edema. MRI showed enhancing lesions surrounding the internal jugular veins and magnetic resonance venography showed bilateral internal jugular vein occlusions with extensive collaterals (figure 1). Both lesions were resected. The pathology was that of a paraganglioma (figure 2).

Paragangliomas are rare neuroendocrine tumors that are usually sporadic.¹ Bilateral jugular paragangliomas can present with symptoms and signs of raised intracranial pressure when they cause occlusion of the internal jugular veins and thus impair cerebral venous outflow.²

Matthew J. Thurtell, MBBS, FRACP, Patricia A. Kirby, MBBS, FRCP, Michael Wall, MD

From the University of Iowa (M.J.T., P.A.K., M.W.) and VA Medical Center (M.J.T., M.W.), Iowa City.

Author contributions: Dr. Thurtell: drafting/revising the manuscript for content, including medical writing for content; study concept/design; analysis/interpretation of data; acquisition of data; study supervision. Dr. Kirby: drafting/revising the manuscript for content, including medical writing for content; analysis/interpretation of data; acquisition of data. Dr. Wall: drafting/revising the manuscript for content, including medical writing for content; analysis/interpretation of data; study supervision.

Study funding: No targeted funding reported.

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

Correspondence to Dr. Thurtell: matthew-thurtell@uiowa.edu

1. Mendenhall WM, Amdur RJ, Vaysberg M, Mendenhall CM, Werning JW. Head and neck paragangliomas. *Head Neck* 2011; 33:1530–1534.
2. Izadi S, Karkos PD, Krishnan R, Hsuan J, Lesser TH. Papilloedema secondary to venous sinus thrombosis following glomus jugulare tumour surgery. *J Laryngol Otol* 2009;123:1393–1395.

NeuroImages Are Free at www.neurology.org!

All *Neurology*[®] NeuroImages can now be freely accessed on the *Neurology* Web site. See them at www.neurology.org, where you can also sign up for journal email alerts and check out other online features, including the Resident & Fellow section, *Neurology: Clinical Practice*, and the weekly *Neurology* Podcasts.

Neurology®

Bilateral jugular paragangliomas: A rare cause of raised intracranial pressure

Matthew J. Thurtell, Patricia A. Kirby and Michael Wall

Neurology 2014;82;732-733

DOI 10.1212/WNL.0000000000000149

This information is current as of February 24, 2014

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/82/8/732.full>

References

This article cites 2 articles, 0 of which you can access for free at:
<http://n.neurology.org/content/82/8/732.full#ref-list-1>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
All Headache
http://n.neurology.org/cgi/collection/all_headache

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints

Information about ordering reprints can be found online:
<http://n.neurology.org/subscribers/advertise>

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2014 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.