

Teaching Video NeuroImage: An Uncommon Cause of Hearing Loss

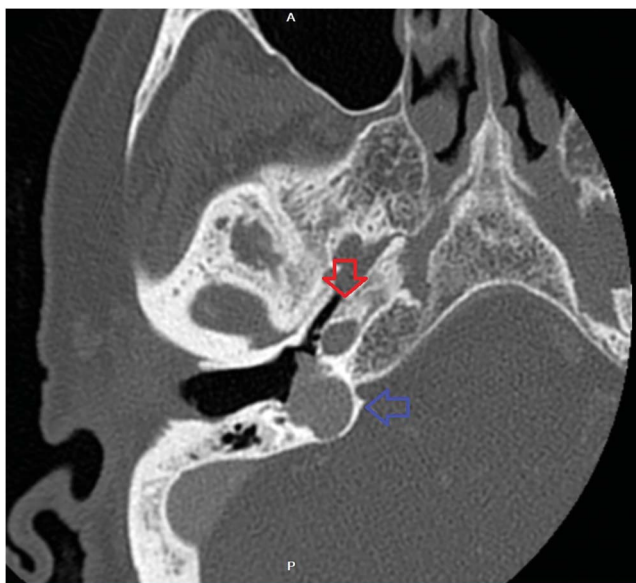
Waleed Tariq Siddiqui, MD, MPH, and Maria Byrne, MD

Neurology® 2021;97:e2150-e2151. doi:10.1212/WNL.0000000000012469

Correspondence

Dr. Siddiqui
wsiddiqui@griffinhealth.org

Figure 1 CT Venogram Axial View: Internal Carotid Artery (Red Arrow) and High Riding Right Jugular Bulb (Blue Arrow) With Bony Dehiscence That Protrudes Into the Middle Ear



A 66-year-old woman presented with right-sided hearing loss, insidious in onset. Otoscopic examination showed pulsation of the tympanic membrane in a seated position (Video 1) which diminished on lying down. A CT venogram of the auditory canal showed a dehiscent right jugular bulb along the hypotympanic surface (Figures 1 and 2). A dehiscent jugular bulb develops because of the absence of sigmoid plate separating the bulb from the middle ear. It appears as blue mass behind the tympanic membrane which may distend with Valsalva or internal jugular vein compression. Affected individuals, while often asymptomatic, can experience conductive/sensorineural hearing loss, tinnitus, or vestibular dysfunction.¹ The patient is followed with imaging periodically for disease progression. Over 10 years, her hearing has been stable. Neurologists should be familiar with the otoscopic appearance of auditory canal dehiscence as tinnitus, and vestibular dysfunction is a common presentation. Treatment involves reassurance and follow-up with serial imaging. Surgical or endovascular intervention is reserved for intolerable symptoms.²

MORE ONLINE

▶ Video

Teaching slides

links.lww.com/WNL/B464

Study Funding

The authors report no targeted funding.

From the Department of Internal Medicine (W.T.S.), Griffin Hospital, Derby, CT; Department of ENT (M.B.), Griffin Hospital, Derby, CT.

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 CT Venogram Coronal View: Dehiscence of Right Jugular Bulb (Blue Arrow) With Small Diverticulum Abutting the Umbo of the Malleus and Opacifying the Round Window



Disclosure

W.T. Siddiqui reports no disclosures relevant to the manuscript. M. Byrne reports no disclosures relevant to the manuscript. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

Appendix Authors

Name	Location	Contribution
Waleed Tariq Siddiqui, MD, MPH	Griffin Hospital, Derby, CT	Acquisition of data and figure illustrations, drafting of the article and final approval
Maria Byrne, MD	Griffin Hospital, Derby, CT	Clinical care of the patient, critical review of article and final approval

References

1. Graham MD. The jugular bulb: its anatomic and clinical considerations in contemporary otology. *Laryngoscope*. 1977;87(1):105-125.
2. Che Ab Rahim NA, Saniasiaya J, Kulasegarah J. Dual retrotypanic aural mass. *BMJ Case Rep*. 2021;14(4):e241591.

Neurology®

Teaching Video NeuroImage: An Uncommon Cause of Hearing Loss
Waleed Tariq Siddiqui and Maria Byrne
Neurology 2021;97:e2150-e2151 Published Online before print July 7, 2021
DOI 10.1212/WNL.0000000000012469

This information is current as of July 7, 2021

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/97/21/e2150.full
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/97/21/e2150.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): Clinical neurology examination http://n.neurology.org/cgi/collection/clinical_neurology_examination Clinical neurology history http://n.neurology.org/cgi/collection/clinical_neurology_history CT http://n.neurology.org/cgi/collection/ct Tinnitus http://n.neurology.org/cgi/collection/tinnitus
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 © 2021 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

