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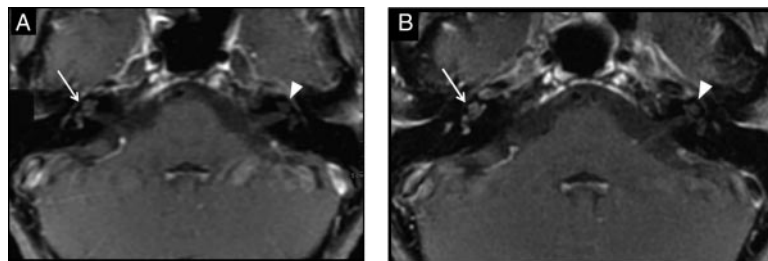
Teaching NeuroImages: Cochleitis

A rare cause of acute deafness in a patient with HCV

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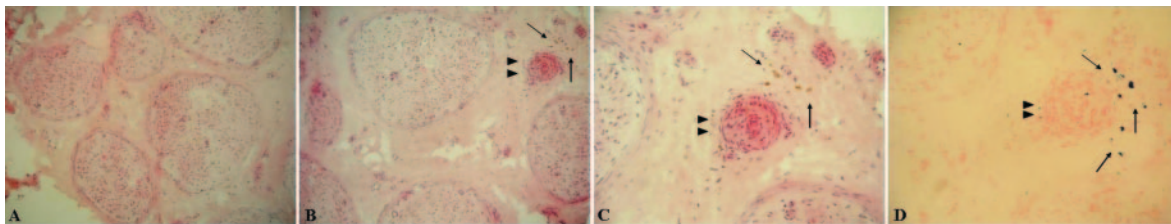
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Figure 1 Brain MRI



(A, B) Inner ear MRI: 2 contiguous adjacent axial enhanced fat-suppressed T1-weighted high-resolution images, showing asymmetric abnormal contrast enhancement of the right cochlea (arrows) and labyrinthine structures. Left cochlea has no detectable abnormalities, and shows no abnormal contrast enhancement (arrowheads).

Figure 2 Sural nerve biopsy



Hematoxylin & eosin staining documented a severe loss of fibers in all fascicles (A, B). Epineurial vessels are thickened (arrowheads in B–D) with deposits of hemosiderin (arrows in B–D) positive at Pearls staining (D). All these findings are indirect signs of vasculitic neuropathy.

A 60-year-old woman with history of multineuritis and hepatitis C virus (HCV) infection suddenly developed bilateral asymmetric sensorineural hearing loss (SNHL). Laboratory panel found a HCV load of 2,031,900 UI/mL and a type II mixed cryoglobulinemia. Brain MRI revealed asymmetric contrast enhancement of right cochlea (figure 1). Sural nerve biopsy showed indirect signs of vasculitis (figure 2). Many viruses have been described as cause of SNHL while its association with HCV has been reported only as complication of antiviral therapy.^{1,2} Our diagnosis was HCV-related vasculitis with bilateral cochlear involvement. MRI can be negative in SNHL,³ and in our case did not show any abnormality on the left side, but revealed inflammation in the right cochlea.

AUTHOR CONTRIBUTIONS

Dr. Luigetti: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, acquisition of data, study supervision. Dr. Cianfoni: drafting/revising the manuscript, study concept or design, analysis or interpretation of data. Dr. Modoni: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Dr. Conte: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Dr. Conti: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Dr. Sabatelli: drafting/revising the manuscript, study concept or design, study supervision.

REFERENCES

1. Schattner A, Halperin D, Wolf D, Zimhony O. Enteroviruses and sudden deafness. *CMAJ* 2003;168:1421–1423.
2. Formann E, Stauber R, Denk DM, et al. Sudden hearing loss in patients with chronic hepatitis C treated with pegylated interferon/ribavirin. *Am J Gastroenterol* 2004;99:873–877.
3. Cadoni G, Cianfoni A, Agostino S, et al. Magnetic resonance imaging findings in sudden sensorineural hearing loss. *J Otolaryngol* 2006;35:310–316.

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