Teaching Video Neuroimages: Spontaneous Nystagmus Reversal in Acute Attack of Ménière Disease

Anand K. Bery, MD, and Tzu-Pu Chang, MD

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Correspondence

Dr. Chang
neurochang0617@gmail.com

Figure Differentiating the Nystagmus Reversal in Acute Ménière Disease From Periodic Alternating Nystagmus

Nystagmus in acute Ménière disease (case)

Periodic alternating nystagmus

Nystagmus in acute Ménière disease (top trace) initially beats towards the affected ear. Over minutes, it changes direction. In some patients, there is one more direction change and a recovery nystagmus. By contrast, periodic alternating nystagmus (bottom trace) alternates direction (through a null point) indefinitely with a fixed period of 1 or 2 minutes. Traces are illustrative only.

A 65-year-old woman with right-sided Ménière disease experienced one of her usual and frequent acute vertigo attacks during eye movement recording (video 1). The attacks were associated with right-sided tinnitus, hearing loss, and vomiting. She initially demonstrated right-beating nystagmus, but after 2 minutes, the nystagmus gradually reversed and became left-beating (video 1). During the reversal, downbeat nystagmus was present temporarily. The left-beating nystagmus then persisted for 2 hours.

We captured the classic change in direction of spontaneous nystagmus in acute Ménière disease (figure).¹ Our patient demonstrated initial irritative nystagmus beating towards the affected ear, followed by paralytic nystagmus beating towards the unaffected ear.¹ The temporary downbeat nystagmus suggests vertical canal involvement. Although downbeat nystagmus usually indicates a cerebellar lesion, our case supports the existence of peripheral downbeat nystagmus, caused by either stimulation of the anterior canal or inhibition of the posterior canal.²

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From the Division of Neurology (A.K.B.), Department of Medicine, University of Ottawa, Ontario, Canada; Department of Neurology/Neuro-medical Scientific Center (T.-P.C.), Taichung Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation; and Department of Neurology (T.-P.C.), School of Medicine, Tzu Chi University, Hualien, Taiwan.

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Appendix Authors

Name	Location	Contribution
Anand K. Bery, MD	Division of Neurology, Department of Medicine, University of Ottawa, Ontario, Canada	Drafting the paper and the video legend; creating the figure

Appendix (continued)

Name	Location	Contribution
Tzu-Pu Chang, MD	Department of Neurology/Neuro-medical Scientific Center, Taichung Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taichung; Department of Neurology, School of Medicine, Tzu Chi University, Hualien, Taiwan	Recording the video and drafting the paper

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