Tullio phenomenon in superior semicircular canal dehiscence syndrome

Tullio phenomenon refers to eye movements induced by sound.¹ This unusual examination finding may be seen in superior semicircular canal dehiscence (SSCD) syndrome.² This disorder is due to absent bone over the superior semicircular canal (figure). Patients complain of dizziness triggered by loud sound, aural fullness, autophony, and pulsatile tinnitus. When Tullio phenomenon exists in SSCD syndrome, the patient develops a mixed vertical-torsional nystagmus in which the slow phase rotates up and away from the affected ear (video on the Neurology® Web site at Neurology.org). This pattern of nystagmus aligns in the plane of the dehiscent semicircular canal and is due to excitation of its afferent nerves.

Gregory J. Basura, MD, PhD, Scott J. Cronin, MD, Katherine D. Heidenreich, MD

From the Division of Otology-Neurotology, Department of Otolaryngology-Head and Neck Surgery, University of Michigan Health System, Ann Arbor, MI.

Author contributions: Gregory J. Basura, MD, PhD: conception of study, drafting and revising the manuscript. Scott J. Cronin, MD: drafting and revising the manuscript. Katherine D. Heidenreich, MD: conception of study, drafting and revising the manuscript, acquisition of data, and study coordination.

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. Heidenreich: kheidenr@med.umich.edu

Tullio phenomenon in superior semicircular canal dehiscence syndrome
Gregory J. Basura, Scott J. Cronin and Katherine D. Heidenreich
Neurology 2014;82;1010
DOI 10.1212/WNL.0000000000000217

This information is current as of March 17, 2014