# Endolymphatic hydrops, nystagmus can help ID subgroups of Meniere disease

March 6 2024, by Lori Solomon

Subgroups of Meniere disease (MD) can be made based on the presence or absence of endolymphatic hydrops (EH) and nystagmus, according to a study published online Jan. 10 in *Frontiers in Neurology*.

Yuya Ueno, from the Osaka University Graduate School of Medicine in

Japan, and colleagues used nystagmus videos and contrast-enhanced magnetic resonance imaging (CE-MRI) to stratify 22 male and 29 female MD patients.

The researchers found that EH was detected on CE-MRI in 84 percent of patients (43 patients), with 31 having unilateral EH. For all 31, EH was detected on the side with the presence of cochlear symptoms. There were 38 patients (74 percent) with both nystagmus and EH. Five patients only showed EH and five only exhibited nystagmus, while three patients had neither. Irritative nystagmus (IN) was seen for 32 of the 43 nystagmus records, immediately after the vertigo episode. In 44 percent of cases, the direction of nystagmus later reversed over 24 hours.

"This means that EH causes IN, i.e., the pathophysiology of the vertigo attack in certain MD with nystagmus is EH in the inner ear, and the pathophysiology of definite MD diagnosed by the Japan Society for Equilibrium Research criteria is EH in the inner ear because certain MD with nystagmus represented most patients in the study," the authors write.

**More information:** Yuya Ueno et al, Stratification of patients with Menière's disease based on eye movement videos recorded from the beginning of vertigo attacks and contrast-enhanced MRI findings, *Frontiers in Neurology* (2024). DOI: 10.3389/fneur.2023.1348177