

Video head impulse testing

The video-head-impulse test (vHIT) provides a functional assessment of all six semicircular canals (SCC).

Vestibular testing at varying frequencies provides deeper insights into hVOR function and is helpful in detecting a cerebello-pontine lesion. Whereas caloric test yields a high sensitivity for nerve dysfunction, vHIT test reveals a remaining function of hVOR in the high-frequency range ¹⁾.

Dizziness is a frequent complaint in patients with **vestibular schwannoma** (VS). An abnormal vestibulo-ocular reflex (VOR) can explain this dizziness in patients with VS. The video Head impulse test (vHIT) offers a chance to describe specifically the VOR findings in such patients ²⁾

Caloric testing and **video head impulse testing** (vHIT) both effectively assess vestibular function for patients with **Vestibular Schwannoma** (VS) and correlate to tumor size. These findings are important as vHIT has a lower overall cost, improved patient tolerance, and demonstrated reliability ³⁾.

Although there was a statistically significant relationship between the results of the vHIT and the caloric test, the limited strength of this relationship suggests that, for unilateral vestibular schwannoma (UVS), caloric testing and vHIT may provide complementary information on vestibular function ⁴⁾.

Unexplained vHIT and VEMP asymmetry should alert otologists and neurologists to undertake imaging in patients presenting with non-specific disequilibrium or vertigo. ⁵⁾

¹⁾
Blödow A, Blödow J, Bloching MB, Helbig R, Walther LE. Horizontal VOR function shows frequency dynamics in vestibular schwannoma. *Eur Arch Otorhinolaryngol*. 2015 Sep;272(9):2143-8. doi: 10.1007/s00405-014-3042-2. Epub 2014 May 1. PubMed PMID: 24789061.

²⁾
Batuecas-Caletrio A, Santa Cruz-Ruiz S, Muñoz-Herrera A, Perez-Fernandez N. The map of dizziness in vestibular schwannoma. *Laryngoscope*. 2015 Dec;125(12):2784-9. doi: 10.1002/lary.25402. Epub 2015 Jun 18. PubMed PMID: 26086320.

³⁾
Brown CS, Peskoe SB, Risoli T Jr, Garrison DB, Kaylie DM. Associations of Video Head Impulse Test and Caloric Testing among Patients with Vestibular Schwannoma. *Otolaryngol Head Neck Surg*. 2019 Mar 26;194599819837244. doi: 10.1177/0194599819837244. [Epub ahead of print] PubMed PMID: 30909803.

⁴⁾
Tranter-Entwistle I, Dawes P, Darlington CL, Smith PF, Cutfield N. Video head impulse in comparison to caloric testing in unilateral vestibular schwannoma. *Acta Otolaryngol*. 2016 Nov;136(11):1110-1114. Epub 2016 May 25. PubMed PMID: 27224664.

⁵⁾
Taylor RL, Kong J, Flanagan S, Pogson J, Croxson G, Pohl D, Welgampola MS. Prevalence of vestibular dysfunction in patients with vestibular schwannoma using video head-impulses and vestibular-evoked potentials. *J Neurol*. 2015 May;262(5):1228-37. doi: 10.1007/s00415-015-7697-4. Epub 2015 Mar 21. PubMed PMID: 25794859.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=video_head_impulse_testing

Last update: **2024/06/07 02:55**

