

BioNanoScience 2017 vol.7 N2, pages 259-262

Common Causes of Vertigo and Dizziness in Different Age Groups of Patients

Zamergrad M., Parfenov V., Yakhno N., Melnikov O., Antonenko L., Nefedovskaya L., Lebedeva N.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, Springer Science+Business Media New York. Dizziness and vertigo are among the most common symptoms occurring in clinical practice. However, the data on the main causes of dizziness and vertigo remain contradictory. We have analyzed the causes of dizziness in 590 outpatients who were referred to the neurologist. The most common causes of vertigo and dizziness in outpatient practice were benign paroxysmal positional vertigo (BPPV) (33.9 %), phobic postural vertigo (PPV) (21.4 %), Ménière's disease/delayed endolymphatic hydrops (20 %), vestibular neuronitis/labyrinthitis (8.1 %), and vestibular migraine (4.1 %). Stroke as a cause of vertigo or dizziness was diagnosed only in 0.8 % of patients. Peripheral vestibular disorders were the most frequent cause of vertigo and dizziness in all age groups of patients: in patients younger than 45 years they were diagnosed in 57 % and in patients older than 60 years in 63.3 % of cases. PPV was the second most common cause of dizziness in patients younger than 45 years (37.4 %) but was established only in 7.6 % of patients older than 60 years. Most of the causes of vertigo and dizziness can be reliably diagnosed with bedside examination while laboratory investigation can be considered as an important but complementary entity.

<http://dx.doi.org/10.1007/s12668-016-0351-5>

Keywords

Benign paroxysmal positional vertigo, Dizziness, Elderly patients, Ménière's disease, Phobic postural vertigo, Vertigo, Vestibular neuronitis

References

- [1] Murdin, L., & Schilder, A. G. (2015). Epidemiology of balance symptoms and disorders in the community: a systematic review. *Otol Neurotol*, 36, 387–92. doi:10.1097/MAO.0000000000000691.
- [2] Davis, A., & Moorjani, P. (2003). The epidemiology of hearing and balance disorders. In L. Luxon, J. M. Furman, A. Martini, & D. Stephens (Eds.), *Textbook of audiological medicine* (pp. 89–99). London: Martin Dunitz.
- [3] Kerber, K. A., Morgenstern, L. B., Meurer, W. J., McLaughlin, T., Hall, P. A., Forman, J., et al. (2011). Nystagmus assessments documented by emergency physicians in acute dizziness presentations: a target for decision support? *Acad Emerg Med*, 18, 619–26. doi:10.1111/j.1553-2712.2011.01093.x.
- [4] Rojl, G., Ploner, C. J., Leithner, C. (2011). Dizziness in the emergency room: diagnoses and misdiagnoses. *Eur Neurol*, 66, 256–63. doi:10.1159/000331046.
- [5] Hanley, K., & O'Dowd, T. (2002). Symptoms of vertigo in general practice: a prospective study of diagnosis. *Br J Gen Pract*, 52, 809–12.

- [6] Isaradisaiikul, S., Navacharoen, N., Hanprasertpong, C., Kangsanarak, J., Panyathong, R. (2010). Causes and time-course of vertigo in an ear, nose, and throat clinic. *Eur Arch Otorhinolaryngol*, 267, 1837-41. doi:10.1007/s00405-010-1309-9.
- [7] Dommaraju, S., & Perera, E. (2016). An approach to vertigo in general practice. *Aust Fam Physician*, 45, 190-4.
- [8] Furman, J. M., Raz, Y., Whitney, S. L. (2010). Geriatric vestibulopathy assessment and management. *Curr Opin Otolaryngol Head Neck Surg*, 18, 386-391. doi:10.1097/MOO.0b013e32833ce5a6.
- [9] Lin, H. W., & Bhattacharyya, N. (2012). Balance disorders in the elderly: epidemiology and functional impact. *Laryngoscope*, 122, 1858-61. doi:10.1002/lary.23376.
- [10] Arya, A. K., & Nunez, D. A. (2008). What proportion of patients referred to an otolaryngology vertigo clinic have an otological cause for their symptoms? *J Laryngol Otol*, 122, 145-9.
- [11] Philip, R., & Prepageran, N. (2009). Dizziness, a review of walk-in patients at a specialised neurotology clinic. *Med J Malaysia*, 64, 56-8.
- [12] Ciriaco, J. G., Alexandre, P. L., Pereira, C. B., Wang, Y. P., Scaff, M. (2004). Phobic postural vertigo: clinical aspects and course of illness. *Arq Neuropsiquiatr*, 62, 669-673.
- [13] Lahmann, C., Henningsen, P., Brandt, T., Strupp, M., Jahn, K., Dieterich, M., et al. (2015). Psychiatric comorbidity and psychosocial impairment among patients with vertigo and dizziness. *J Neurol Neurosurg Psychiatry*, 86, 302-308. doi:10.1136/jnnp-2014-307601.
- [14] Strupp, M., & Brandt, T. (2008). Diagnosis and treatment of vertigo and dizziness. *Dtsch Arztebl Int*, 105, 173-180. doi:10.3238/arztebl.2008.0173.
- [15] Obermann, M., Bock, E., Sabev, N., Lehmann, N., Weber, R., Gerwig, M., et al. (2015). Long-term outcome of vertigo and dizziness associated disorders following treatment in specialized tertiary care: the Dizziness and Vertigo Registry (DiVer) Study. *J Neurol*, 262, 2083-91. doi:10.1007/s00415-015-7803-7.
- [16] Kerber, K. A., Brown, D. L., Lisabeth, L. D., Smith, M. A., Morgenstern, L. B. (2006). Stroke among patients with dizziness, vertigo, and imbalance in the emergency department: a population-based study. *Stroke*, 37, 2484-2487.
- [17] Kattah, J. C., Talkad, A. V., Wang, D. Z., Hsieh, Y. H., Newman-Toker, D. E. (2009). HINTS to diagnose stroke in the acute vestibular syndrome: three-step bedside oculomotor examination more sensitive than early MRI diffusion-weighted imaging. *Stroke*, 40, 3504-3510. doi:10.1161/STROKEAHA.109.551234.
- [18] Newman-Toker, D. E., Kattah, J. C., Alvernia, J. E., Wang, D. Z. (2008). Normal head impulse test differentiates acute cerebellar strokes from vestibular neuritis. *Neurology*, 70, 2378-2385. doi:10.1212/01.wnl.0000314685.01433.0d.
- [19] Newman-Toker, D. E., Kerber, K. A., Hsieh, Y. H., Pula, J. H., Omron, R., Saber Tehrani, A. S., et al. (2013). HINTS outperforms ABCD2 to screen for stroke in acute continuous vertigo and dizziness. *Acad Emerg Med*, 10, 986-96. doi:10.1111/acem.12223.