

Chronic oscillopsia and neck dystonia: atlanto-occipital origin

Leonardo Furtado Freitas, Márcio Luís Duarte, Kevin J Abrams

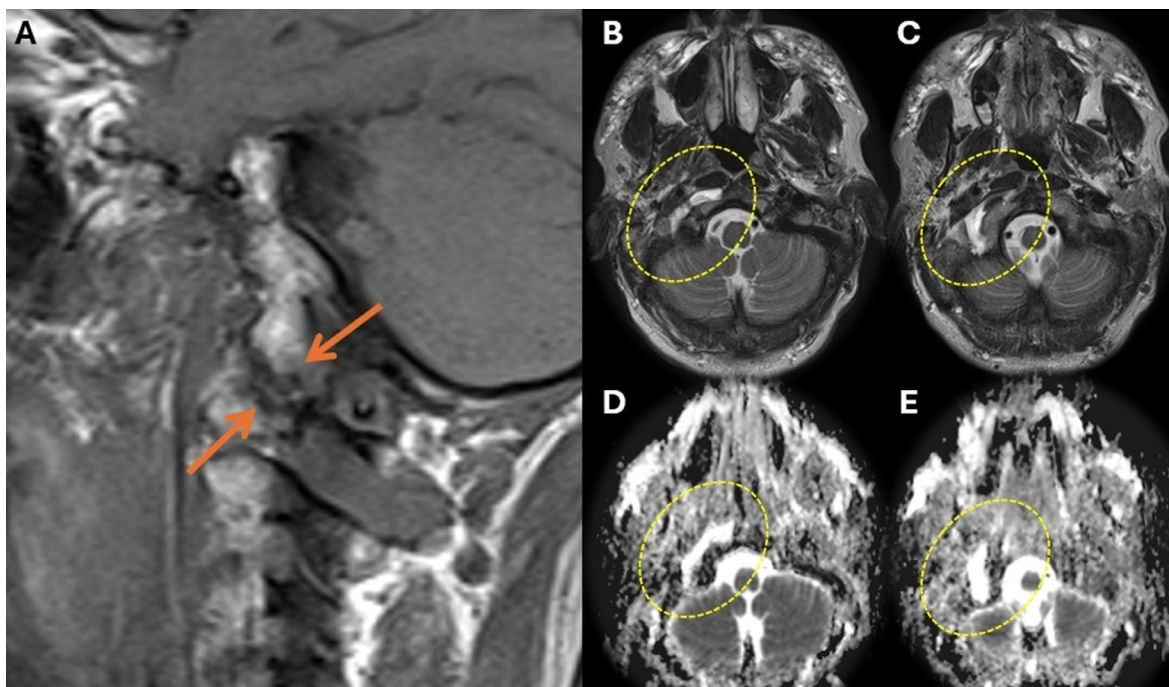
A 61-year-old woman presented with long-standing involuntary neck and head movements, characteristic of cervical dystonia, accompanied by oscillopsia. These symptoms severely impacted her daily activities, including basic tasks and overall quality of life. Cervical dystonia, a movement disorder caused by sustained or intermittent muscle contractions leading to abnormal postures or repetitive movements, was compounded in this patient by visual disturbances, including the perception of unstable surroundings.

To investigate a potential structural cause, magnetic resonance imaging (MRI) of the craniovertebral junction was performed. The imaging revealed significant right-sided atlanto-occipital arthropathy, evidenced by bony erosions, joint effusion and adjacent soft tissue changes

(Figure 1). These abnormalities suggested underlying degenerative or inflammatory pathology involving this critical joint, which plays a fundamental role in head and neck mobility. The findings clarified the likely origin of her symptoms, indicating that the arthropathy contributed to both her dystonia and vestibular complaints.

Atlanto-occipital arthropathy, particularly when associated with effusion, can disrupt the integration between vestibular and proprioceptive systems, essential for spatial orientation and balance.¹ Inflammation and effusion may interfere with visual-vestibular pathways, manifesting as vertigo and oscillopsia.² This case underscores the importance of considering craniovertebral structural pathology in patients with atypical or refractory dystonia, where MRI can play a pivotal diagnostic role.

Figure 1: Magnetic resonance imaging of the craniovertebral junction with sagittal T1 (A), axial T2 (B and C) and axial ADC map (D and E) sequences. There was unilateral right-sided atlanto-occipital arthropathy, with bony erosions (orange arrows) and effusion (dashed yellow circle).



COMPETING INTERESTS

No specific funding was received for this work. The authors declare that there are no conflicts of interest relevant to this work.

ACKNOWLEDGEMENTS

Ethics:

Name of the institutional review board or ethics committee that approved the study: no institutional review board (IRB) was requested for this case report. Informed consent for publication was obtained from the patient's legally authorised representative.

AUTHOR INFORMATION

Leonardo Furtado Freitas, MD, EDiNR: Division of Neuroradiology, Department of Radiology, Baptist Health South Florida, United States of America.

Márcio Luís Duarte, MD, Msc, PhD: Department of Radiology, Universidade de Ribeirão Preto – Campus Guarujá, Guarujá, Brazil; Department of Radiology, Diagnósticos da América SA, São Paulo, Brazil.

Kevin J Abrams, MD: Division of Neuroradiology, Department of Radiology, Baptist Health South

Florida, United States of America.

CORRESPONDING AUTHOR

Leonardo Furtado Freitas, MD, EDiNR: Division of Neuroradiology, Department of Radiology, Baptist Health South Florida, United States of America.
E: drleonardofurtado@gmail.com

URL

<https://nzmj.org.nz/journal/vol-139-no-1628/chronic-oscillopsia-and-neck-dystonia-atlanto-occipital-origin>

REFERENCES

1. Kumar S, Gupta N, Madaan P. Isolated atlanto-occipital joint effusion presenting as cervicogenic vertigo. *J Clin Images Med Case Rep.* 2023;4(7):2494. doi:10.52768/2766-7820/2494.
2. Kozić D, Bjelan M, Njagulj V, et al. Isolated inflammatory arthritis of the atlantooccipital joint confused with migraine. *J Rheumatol.* 2013;40(12):2097-2098. doi: 10.3899/jrheum.121374.