

## Cough in Children and Adults: Diagnosis, Assessment and Management (CICADA). Summary of an updated position statement on chronic cough in Australia

TO THE EDITOR: I read with interest the position statement summary by Marchant and colleagues on chronic cough in Australia.<sup>1</sup>

There are some rare and important causes of chronic cough in adults that should be brought to the attention of general health practitioners. The neurological involvement of Arnold's nerve (a branch of the vagal nerve) is not often considered by doctors, and there are cases of chronic cough being cured by removal of foreign bodies impinging on the tympanic membrane.<sup>2</sup> Arnold's nerve supplies the concha and external auditory meatus and is the cause of coughing induced by otoscopic examination.

Giant cell arteritis not only involves the scalp and extracranial blood vessels

but also the large intrathoracic arteries. Chronic cough may precede giant cell arteritis diagnosis and may be due to inflammation of the vagal nerve as it loops under the aorta and the right subclavian artery. We reported a case of chronic cough due to giant cell arteritis missed by respiratory physicians.

Imaging with computed tomography and fluorodeoxyglucose positron emission tomography revealed arteritis contiguous with the vagal nerve,<sup>3</sup> the cough resulting from irritation of Arnold's nerve in the vagal nerve bundle. Chronic neuropathic cough following viral infection may also be due to auricular vagal involvement and respond to gabapentin.

Cerebellar ataxia, neuropathy and vestibular areflexia syndrome (a rare neurological condition)<sup>4</sup> and hereditary sensory neuropathy<sup>5</sup> may also cause Arnold's nerve irritation.

Assessment of chronic cough should therefore include otoscopy, neurological examination, and an erythrocyte sedimentation rate test.

David A Prentice

Perron Institute, Perth, WA.

dprent@bigpond.net.au

**Competing interests:** No relevant disclosures. ■

doi: [10.5694/mja2.52276](https://doi.org/10.5694/mja2.52276)

© 2024 AMPCo Pty Ltd.

- 1 Marchant JM, Chang AB, Kennedy E, et al. Cough in Children and Adults: Diagnosis, Assessment and Management (CICADA). Summary of an updated position statement on chronic cough in Australia. *Med J Aust* 2024; 220: 35-45. <https://www.mja.com.au/journal/2024/220/1/cough-children-and-adults-diagnosis-assessment-and-management-cicada-summary>
- 2 Wolff AP, May M, Nuelle D. The tympanic membrane: a source of the cough reflex. *JAMA* 1973; 223: 1269-1269.
- 3 Azzam O, Hubble D, Prentice D. Cough as a clinical manifestation of large vessel vasculitis. *Intern Med J* 2022; 52: 488-490.
- 4 Paisán-Ruiz C, Jen JC. CANVAS with cerebellar/sensory/vestibular dysfunction from RFC1 intronic pentanucleotide expansion. *Brain* 2020; 143: 386-390.
- 5 Spring PJ, Kok C, Nicholson GA, et al. Autosomal dominant hereditary sensory neuropathy with chronic cough and gastro-oesophageal reflux: clinical features in two families linked to chromosome 3p22-p24. *Brain* 2005; 128: 2797-2810. ■