

The aetiology of chronic cough: a review of current theories for the otorhinolaryngologist *J Laryngol Otol* 2005;**119**:507–14

Dear Sirs

We enjoyed reading the recent article ‘The aetiology of chronic cough: a review of current theories for the otorhinolaryngologist’ by J O’Hara and N S Jones.¹ In this highly relevant and important review, the authors provided both an excellent summary of the main causes of chronic cough and a good management algorithm to deal with the majority of patients suffering from this common symptom. In addition, they reminded ENT surgeons of the need to consider post-nasal drip syndrome, asthma and gastroesophageal (supine) reflux or laryngopharyngeal (upright) reflux when faced with a patient complaining of seemingly intractable cough. Furthermore, after examining the available evidence, the authors suggested that mechanical stimulation of the pharynx by mucus is an inadequate theory for the production of cough. Instead, they concluded that an inflammatory process, most likely mediated by eosinophils and mast cells, was a more plausible explanation.

Shortly after the above paper was accepted for publication, B Lee and P Woo co-authored another interesting article on chronic cough as a sign of laryngeal sensory neuropathy.² We would be very grateful for the authors’ views on:

- (1) the role of laryngeal sensory neuropathy in the aetiology of chronic cough,
- (2) the role of a trial of anti-seizure medications, such as Gabapentin, in the treatment of cryptogenic cough, and
- (3) the role of laryngeal electromyography and stroboscopy in the management of chronic cough.

Ricardo Persaud, MPhil, DOHNS, MRCS,
Specialist Registrar in Otolaryngology,
Adam Frosh, FRCS (ORL),
Consultant Otolaryngologist,
Department of Ear, Nose, Throat, Head & Neck
Surgery,
Lister Hospital,
Stevenage, UK

References

- 1 O’Hara J, Jones NS. The aetiology of chronic cough: a review of current theories for the otorhinolaryngologist. *J Laryngol Otol* 2005;**119**:507–14
- 2 Lee B, Woo P. Chronic cough as a sign of laryngeal sensory neuropathy: diagnosis and treatment. *Ann Otol Rhinol Laryngol* 2005;**114**:253–7

Authors’ reply

Dear Sirs

We would like to thank Mr Persaud and Mr Frosh for their letter.

Thank you for giving us the opportunity to comment on the 2005 paper by Lee and Woo that

was published after our review.¹ These authors hypothesized that ‘cough with or without laryngospasm’ may be a manifestation of a sensory neuropathy often secondary to a viral illness. This hypothesis deserves consideration.

Lee and Woo presented an observational study of 28 patients. How these patients were selected and from what population base of patients who present with cough, was not made clear. The authors did, however, exclude reflux, asthma, and post-nasal drip (not defined – please refer to O’Hara and Jones² for a critical analysis of this term), which along with smoking and angiotensin converting-enzyme (ACE) inhibitors form the cause of cough in the vast majority of patients. Therefore, this is a very select group. These patients were described as having the following characteristics: a sudden onset of cough, laryngospasm or throat-clearing after a viral illness or surgery. Seventy-one per cent (20 of 28) had a motor neuropathy diagnosed on electromyography (EMG) or videostroboscopy. Lee and Woo described three cases in detail but it is notable that these all differed from the above description in that the first had dysphagia, the second had laryngospasm so severe that they had attended an accident and emergency department on several occasions, and the third had paradoxical adductor cord movement and required Botox. If these cases were presented as examples, their diverse and atypical features indicate the lack of uniformity of this group. This is further underlined by the fact that four cases had iatrogenic damage to the superior laryngeal nerve or recurrent laryngeal nerve. Eight patients had normal EMG and stroboscopy. A third of the patients without evidence of altered laryngeal neuromuscular activity were helped with Gabapentin, whereas 85 per cent (17 of 20) with abnormal EMG or stroboscopy were helped by Gabapentin.

In summary, this was a very select group of patients which demonstrated features that varied from the vast majority of patients with chronic cough. A history that includes laryngospasm, altered voice, dysphagia or surgery that may have involved damage to the laryngeal nerves are features that would indicate that another pathology may be responsible, and laryngeal EMG and stroboscopy may help to define a laryngeal neuropathy. Regarding the use of Gabapentin, a prospective randomized study is required before advising its use, as not only does the placebo effect of any medication need to be controlled for, but if a viral aetiology is the cause in many of these patients, as the authors suggested, then their condition may resolve in any event.

The authors concluded their paper by stating that intractable cough and laryngospasm may be harbingers of neuropathy of the larynx, and we would not argue with that statement. We wish to

conclude by saying that, given the evidence available, we believe that a motor neuropathy is unlikely to be responsible for chronic cough in patients who have no history of laryngospasm, altered voice, dysphagia or surgical damage to the laryngeal nerves. In other words, the vast majority of patients with chronic cough do not have a sensory neuropathy.

N J Jones, MD, FRCS,
J O'Hara, MRCS,
Department of Otorhinolaryngology, Head & Neck
Surgery, University Hospital,
Nottingham, UK.

References

- 1 Lee B, Woo P. Chronic cough as a sign of laryngeal sensory neuropathy: diagnosis and treatment. *Ann Otol Rhinol Laryngol* 2005;**114**:253–7
- 2 O'Hara J, Jones NS. The aetiology of chronic cough: a review of current theories for the otorhinolaryngologist. *J Laryngol Otol* 2005;**119**:507–14

Tophaceous gout presenting as a dorsal nasal hump *J Laryngol Otol* 2005;**119**:492–4

Dear Sirs

We read with interest the article entitled 'Tophaceous gout presenting as a dorsal nasal hump' by

Hughes *et al.* in the June 2005 issue of *The Journal of Laryngology & Otology*.¹

This paper states that tophaceous gout has not been reported before in the soft tissues of the nose. We wish to correct this statement, as Rask and Kopf reported this condition in 1978.² Rask and Kopf obviously did not use an endoscopic approach in surgically removing this lesion; however, as in the article by Hughes *et al.*, they showed histological evidence of gout in the nasal soft tissues.

P Monksfield,
Specialist Registrar
M J Porter,
Consultant
Department of Otolaryngology,
Worcester Royal Hospital,
Worcester, UK.

References

- 3 Hughes JP, DiPalma S, Rowe-Jones J. Tophaceous gout presenting as a dorsal nasal hump. *J Laryngol Otol* 2005;**119**:492–4
- 4 Rask MR, Kopf EH. Nasal gouty tophus. *JAMA* 1978;**240**:636