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Letters to the Editors

An approach to the management of paroxysmal laryngospasm

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Dear Sirs

A recent article in *The Journal of Laryngology & Otology*, 'An approach to the management of paroxysmal laryngospasm' by Obholzer *et al.*,[1] implied that gastroesophageal disease is the main cause of the condition. I believe that the approach described ignores other causes (particularly whooping cough) and could lead to serious misdiagnosis and public health consequences. Obholzer *et al.* describe paroxysmal spontaneous laryngospasm as a very rare complication of gastroesophageal disease and report 15 patients with the condition.[1] Presumably, the patients did not have an associated cough, because no mention is made of it. However, in describing the symptoms of the condition, they quote Maceri and Zim,[2] who described eight patients with laryngospasm attributed to gastroesophageal reflux; all of these patients had a 'violent cough', and several had an antecedent upper respiratory tract infection. These are features of a common cause of laryngospasm – whooping cough (there were 2085 notifications of whooping cough in the Australian state of New South Wales in 2007, from a population of approximately seven million,[3] and 60 million cases a year worldwide).[4] Maceri and Zim make no mention of whooping cough being excluded or considered. Obholzer *et al.* should clarify whether any of their patients had cough associated with their laryngospasm; if so, they may well have had whooping cough. Furthermore, I believe it is likely that at least some of Maceri and colleagues' patients (with violent cough) did indeed have whooping cough – 'pertussis' is said to mean 'violent cough'.[5]

I write because I believe that, before making a diagnosis of laryngospasm caused by reflux (which Obholzer *et al.* state is very rare), one should consider the possibility of whooping cough; if there is a cough associated with laryngospasm (stridor), then this is a likely diagnosis. This is especially important with respect to public health; missing a diagnosis of whooping cough deprives one of the chance to take measures to prevent spread of the condition, which is highly infectious and which can be fatal (with more than half a million deaths worldwide, especially in children under the age of six months).[4] Presentation may be atypical especially in the adult with waning immunity as childhood vaccination loses potency, and these adults are the most common source of disease in infants too young to be immunised.[4–6] Such atypical presentation can predispose to missed diagnoses. An apparent response to antireflux treatment does not exclude whooping cough, because such treatment may be helpful (although it was not particularly so in a serologically confirmed whooping cough patient to whom I gave it), and because the natural history of whooping cough is of slow improvement and resolution with time – the old Chinese name for the disease is 'the 100-day cough'.[5]

Readers should make sure that they are not dealing with whooping cough, which is a common, highly infectious, dangerous cause of laryngospasm, before diagnosing a rare cause of the condition. I believe we often miss diagnosing it.[7]

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Authors' reply

Dear Sirs

We thank Mr Harrison for his comments regarding the potential role of pertussis in the aetiology of laryngospasm.

The two pieces of information required to assess the likelihood of pertussis in such patients – i.e. the duration of symptoms and the presence of a cough – were absent from this paper. Pertussis infection is typically characterised by a six week course with catarrhal, paroxysmal and convalescent phases, each lasting approximately two weeks.

The duration of symptoms was greater than six months in all but two of our patients, one of whom had a two month history without a cough, and the other a three month history with a cough. Overall, nine of the 15 patients associated coughing with at least some of their episodes. This is to be expected, as both laryngospasm and cough reflect laryngeal irritation. Symptoms of paroxysmal laryngospasm lasting for months to years are, we feel, unlikely to be secondary to pertussis.

Atypical pertussis is therefore a possible diagnosis in one 33-year-old patient; however, we feel the diagnosis can be

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excluded in the other patients of our series, based on the clinical history. We appreciate the importance of considering the diagnosis of whooping cough, particularly in patients presenting with a relatively short history of symptoms, and apologise for omitting the information pertinent to excluding it.

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