'Habit Cough' in Children Responds to Behavioral Therapy

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A repetitive "habit cough" (HC) with no organic cause can be remedied in most children with simple behavioral therapy, according to research published online October 16 in the *Journal of Allergy and Clinical Immunology*.

The disorder is often associated with considerable morbidity, note Miles Weinberger, MD, from the Department of Pediatrics, University of Iowa Children's Hospital, and Mark Hoegger, MD, PhD, from University of Iowa College of Medicine, Iowa City.

"The take-home message is that clinicians should recognize the unique characteristics of HC as distinguished from the many other causes of chronic cough to avoid extensive and expensive evaluative measures and unnecessary pharmacotherapy," they write.

The clinical criteria of HC consist of repetitive coughing up to several times per minute for extended periods, and even all day, and a total absence of coughing during sleep. "Once identified, a simple behavioral methodology can provide sustained cessation of cough for most children with this disorder," the authors write.

Dr Weinberger and Dr Hoegger base their conclusions on the outcomes of 140 patients with repetitive functional cough seen between 1995 and 2014 at a pediatric allergy clinic. Fifty-eight percent of the patients were boys. The median age in the cohort was 10 years, with a range of 4 to 8 years. In most of the patients, the cough was characterized by a loud barking noise. A softer throat-clearing sound was present in 10% of the patients, and 11% exhibited both patterns.

Cough duration at the initial clinic visit averaged 4 months and ranged from less than a month to more than a year. Patient histories revealed frequent use of albuterol, oral corticosteroids, montelukast, inhaled corticosteroids, antibiotics, gastric acid suppressants, and cough suppressants. In addition, many patients had sought frequent unscheduled medical visits, and four had been hospitalized for cough. During clinic visits, 85 patients exhibited the cough.

A corrective behavioral approach led to cough cessation in 81 (95%) of those 85 patients. The major steps of the applied suggestion therapy include:

- Tell the patient the coughing is a vicious cycle that started with a now-defunct irritant, and the cough itself is now causing irritation and more coughing. Explain that each second the cough is delayed makes it easier to suppress it.
- Instruct the patient to focus entirely on holding back the urge to cough for an initially brief, timed period such as 1 minute. Increase this time progressively and offer a different behavior to reduce irritation, including sipping lukewarm water or inhaling a cool mist from a vaporizer.
- Confidently acknowledge that the patient is increasingly able to resist the urge to cough.
- When the patient is able to suppress the cough voluntarily (usually by about 10 minutes), ask "You're beginning to feel you can resist the urge to cough, aren't you?"
- End the session when the patient repeatedly answers positively the question, "Do you feel that you can now resist the urge to cough on your own?" This question is asked only after the patient has gone 5 minutes without coughing.
- Express confidence that the patient can resist the urge to cough at home (autosuggestion).

Underscoring the importance and effectiveness of behavioral intervention, the authors point to a study at the Mayo Clinic in Rochester, Minnesota, involving 60 children diagnosed with involuntary cough syndrome with a previous mean duration of 7.6 months. In contrast to the Iowa study, no behavioral treatment was applied. In 44 patients (73%), habit cough persisted for an average of 6.1 additional months before spontaneous resolution. The other 16 (27%) were still coughing a mean duration of 5.9 years later.

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