

Psychogenic Cough (Somatic Cough Syndrome)

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Preface

Coughing in children has a major impact on a child's sleep, school performance, and ability to play. It may similarly disturb other family members' sleep and can be disruptive for teachers and peers. Considerable parental anxiety is generated in families with a child that has chronic cough.

Key Points

- Also known as Habit Cough, or now Tic Cough
- Is a nervous laryngeal cough
- Decreases or is absent during sleep
- Physical exam is normal
- Has no apparent organic or physiologic etiology
- Results in prolonged school absenteeism
- Is a diagnosis of exclusion

Definition, Presentation, and Pathophysiology

Definition

- Psychogenic cough belongs under the category of chronic cough if it lasts >4 weeks.
- The prevalence of psychogenic cough is not well established.
- It is a nervous laryngeal cough emitted on an expiratory spasmodic contraction of the glottis adductors, repeated frequently during the day, and generally stopping during sleep.
 - This short, sharp, usually hoarse explosive cough can resemble the bark of a dog or the bark of a seal.
 - It is also known as Honking Cough, Barking Cough, and Habit Cough.
 - It should not be labeled “Cough Tic,” the term describing patients suffering from Tourette’s Syndrome. These patients may have a dramatic positive response to medications such as diphenylbutylpiperidine or clonidine.
 - Psychogenic cough is the only one with an assigned ICD-9 code.
- Psychogenic cough involves cases of chronic cough where there is no apparent organic or physiologic etiology, and most importantly, the absence of physical abnormalities
- Patients with psychogenic cough have prolonged school absenteeism as a secondary gain.
- The cough often involves peer and familial psychosocial stress.
- Criteria, which differentiate psychogenic from other forms of cough, include:
 - Patients may have no nocturnal symptoms or they are significantly diminished once they fall asleep.
 - May or may not cough with physical activity. Patients who have other underlying pulmonary conditions that co-exist with psychogenic cough, i.e., asthma, can cough with physical activity.
 - Mostly no typical trigger factors, except for upper respiratory tract infection
 - Symptoms may occur suddenly and even at rest.
 - Speaking is possible without problems.
 - Normal diagnostic results during episodes of symptoms
 - Patients are usually able to perform spirometry, although some of them may not be able to due to coughing.
 - Note that Peak Flow Rate is not a reliable test.
 - Note distinction on patients who may have co-existing laryngeal dysfunction.
 - They may show abnormalities on the inspiratory flow-volume loop.
 - Patients with laryngeal dysfunction should be referred to and benefit from receiving speech therapy.
 - Lack of response to pharmacotherapy
- Psychogenic cough is different from Cough Hypersensitivity Syndrome. Patients with Cough Hypersensitivity Syndrome have an abnormal afferent input rather than a heightened efferent response.

Presentation

- The classic presentation is that of a harsh, barking, repetitive cough that occurs several times per minute for hours on end.
- The cough often appears to be triggered by upper respiratory tract infections, but its quality changes and persists for weeks.
- There is no sputum production, no history of shortness of breath, no fatigue, or changes in the quality of the pitch of the voice.
- Unlike cough from most underlying causes, psychogenic cough typically diminishes or completely disappears with vigorous physical activity or pleasurable activities and sleep.

- Psychogenic cough shows stereotypic forward tilting of the torso with mouth covered by the hand.
- Patients may often show “la belle indifference” or a relative lack of concern about the symptoms.
- The coexistence of psychiatric disorders, including conversion disorder, mixed anxiety, and depressive disorders, and Tourette syndrome, should always be explored.

Pathophysiology

- As this is a diagnosis of exclusion, other etiologies, including infection and undiagnosed asthma, must be ruled out.
- Clinical findings, pulmonary function testing, and radiologic studies are negative unless they coexist with other underlying disorders such as asthma.
- Patients with psychogenic cough typically do not respond to medications such as antibiotics, bronchodilators, systemic or inhaled corticosteroids, antihistamines or decongestants, and cough suppressants.

Treatment

- Behavior modification therapies have been reported as a potential approach for habit cough and for chronic cough refractory to medical treatment.
- Modalities of treatment include biofeedback, self- hypnosis, bed-sheet technique, and differential reinforcement.
- There are no evidence-based studies to support a specific behavioral therapy.
 - “The quality of evidence is low due to lack of control groups, the retrospective nature of all studies, heterogeneity of definitions and diagnostic criteria, and the high likelihood of reporting bias.” (Management and Diagnosis of Psychogenic Cough, Habit Cough and Tic Cough. A systematic review. *Chest* 2014, 146(2):355-372)
- Finally, show empathy for the patient and the family.
 - Acknowledge child’s condition.
 - Be sensitive to the patients as well as to the family feelings.
 - Identify stressors.
 - Implement coping mechanism.

This guideline was developed to improve health care access in Arkansas and to aid health care providers in making decisions about appropriate patient care. The needs of the individual patient, resources available, and limitations unique to the institution or type of practice may warrant variations.

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