Honking: Psychogenic cough in a young adolescent female undiagnosed for a year

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ABSTRACT

Psychogenic cough also called habit cough is a debilitating condition affecting mainly pediatric and adolescent population. Its prevalence is low and hence may be unrecognized for several months. We report one such case in a young adolescent female who presented with "honking cough" and remained undiagnosed for one year. She received multiple courses of oral steroids and antibiotics without much improvement. This created a stressful condition for her family as the honking cough remained undiagnosed in spite of consulting many physicians. She reported to our hospital where a diagnosis of Psychogenic cough was made and she showed marked improvement with suggestion therapy. This case is reported to create awareness of this condition as a cause for chronic cough in adolescent age group when such patients present to a physician instead of a pediatrician.

Keywords: Adolescent, Habit cough, Honking, Psychogenic cough

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INTRODUCTION:

Psychogenic cough also called habit cough is defined as a chronic cough that occurs in the absence of any underlying disease. It is a repetitive and purposeless cough, usually loud and harsh, honking or barking in nature that occurs several times per minute for hours on end.[1] The sound of cough is similar to the call of Canadian wild goose. It is caused due to perceived stress or anxiety and is mostly seen in school going children and adolescents, and uncommonly in adults. More than 90% of cases of habit cough are reported in patients less than 18 years of age.[2] Both boys and girls are equally affected. Habits are generally semi-voluntary activities, reinforced

because they are self soothing or because of response they elicit from people around them. Most habits disappear during sleep. Thus this psychogenic cough is also called habit cough.

Cough is a protective physiologic reflex that helps in mucociliary clearance. It is characterized by generation of high intrathoracic pressure against a closed glottis followed by forceful expulsion of air and secretions on opening of glottis. Intrathoracic pressure of 300mmHg and expiratory velocities of 500 miles/hour may be achieved during the act of coughing.[3] This gives explosive sounds to cough. Repetitive loud coughing in psychogenic cough is known to produce rib fractures.[4] Repetitive cough interferes in normal activities and patients tend to have poor quality of life. Diagnosis of Psychogenic cough is challenging[5] and such patients with chronic cough are referred to Pulmonologists. This case is reported to create awareness of this condition as a cause for chronic cough in adolescent age group.

CASE REPORT:

A 16 years old school girl presented to a respiratory medicine out patient department of Goa Medical College with history of dry troublesome cough of one year duration. Cough was continuous, honking in nature with each bout lasting for about 1-2 minutes. Patient gave history of irritation in throat leading to cough followed by post- tussive chest pain. There was no history of hemoptysis, shortness of breath, wheezing, fever, sneezing, post nasal drip, heartburn, regurgitation, abdominal pain, weight loss, appetite loss or skin rash. There was no history of tics, throat clearing or other nervous habits. In view of severe bouts of chronic cough patient was admitted for further evaluation.

She was a non smoker, non alcoholic with no other addiction history. Prior to her 10th standard examinations, patient had a upper respiratory tract infection following which she developed continuous honking cough which was troublesome and made her miss her exams. She has been coughing on and off since the episode. She was treated by multiple physicians with antibiotic courses, oral steroids and antihistaminics in past one year without any symptomatic relief. She is staying with her mother, father and three elder

brothers. She is youngest of the siblings and her brothers are doing well in their academic career. There has not been any family stressor recently and none of the family members were diagnosed with any neurological, psychiatric or learning problems.

On general examination she was a healthy adolescent. Respiratory and Ear Nose Throat examination were unremarkable. Baseline laboratory parameters were within normal range. Liver, renal function tests and arterial blood gases were also within normal range. Chest radiograph was normal. Pulmonary function tests were normal with pre bronchodilator FEV1 of 102% predicted. Computed tomography of para nasal sinuses, neck and chest did not reveal any underlying organic cause for her cough. Flexible bronchoscopy was performed which demonstrated normal bronchial anatomy with no endobronchial abnormality or growth.

As psychogenic cough is a diagnosis of exclusion and since all her investigations were normal our clinical suspicion of psychogenic cough was confirmed. Patient was referred to a psychiatrist. Psychoanalysis was done and suggestion therapy was given. Patient showed marked improvement after first session of suggestion therapy. Family members were counseled and explained the nature of habit and psychogenic cough. Follow up in two months showed complete resolution of cough and patient was leading a healthy normal life.

DISCUSSION:

Cough is one common complaint with which patients present to the physician. In children, viral infections are the common causes of cough followed by aspirated foreign body, asthma, cystic fibrosis and congenital abnormalities of respiratory tract. Chronic cough in children is defined as daily cough for more than 3-4 weeks. Psychogenic cough is chronic cough. Its prevalence is 3-10% in children with chronic cough of unknown origin and is known to diminish after 18 years of age, although is occasionally seen in adults. It is a diagnosis of exclusion after extensive evaluations are performed to rule out organic causes. The characteristics of psychogenic cough are dry, honking, repetitive cough, it decreases or is absent during enjoyable activities, absent during sleep and occurs in times of stress

and increased in the presence of parents or teachers. The cough often disrupts normal activities and school attendance and does not respond to cough sedatives, steroids, antihistamines and antibiotics.[6] Our patient had received various antibiotics, steroids and cough sedatives without any improvement. The characteristic posture in habit cough is "chin- on- chest", wherein the chin is on chest and one hand supporting the throat.[7] This similar posture was adopted by our patient too. The cause for psychogenic cough in our patient was stress of 10th standard examinations.

Psychogenic cough has to be differentiated from Tourette's syndrome, transient tic disorder and chronic motor or vocal tic disorder. According to the Diagnostic and Statistical Manual of Mental Disorders IV,[8] Tourette's syndrome is a chronic neuropsychiatric disorder (attention deficit disorder, obsessive compulsive behaviour) characterized by motor and vocal tics. It is an inherited disorder and exact genetic abnormality is unknown. Average age at onset of tics is 5.6 years, tics are most severe at 10 years of age and 50% of patients are free of tics by 18 years of age.[9] Transient tic disorders are self limited, lasting for less than a year. Tics are sudden, rapid, recurrent, non rhythmic, stereotyped motor movements or vocalizations. They disappear during sleep and exacerbated by stress, yet defined as involuntary or semi-voluntay. Our patient did not have features of Tourette's Syndrome or any Tic disorder.

After ruling out all possible causes of chronic cough (as diagnosis of this condition is by exclusion) and keeping in mind the salient characteristics of psychogenic cough, the patient was diagnosed as a case of psychogenic cough and referred to a psychiatrist. She underwent psychoanalysis, counseling and suggestion therapy with marked improvement. Within first session patient's cough improved remarkably. She was followed for two months following discharge with no relapse of symptoms. Suggestion therapy has been the main treatment. The patient is told that the cough may have had its origin in disease process, but now it is a habit without any disease and must be suppressed to break the cough cycle. Once the cough is controlled, the cough

– irritation cycle breaks off. Reassurance from the physician and use of lozenges or other distractors like lollipop, sips of water helps break the cough cycle. Other therapies include self hypnosis and behavioral intervention.

CONCLUSION:

Psychogenic cough is a debilitating disorder. Early recognition and appropriate treatment is necessary for preventing adverse impact on quality of life and unnecessary therapy for suspected organic disease specially steroids and antibiotics.

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