



## The Barking Girl: A Case Report

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### Abstract

Involuntary cough without an identified underlying organic reason has been given various names and recommended treatments. Current experience suggests that “habit cough” best describes this clinical entity and that various forms of suggestion therapy including hypnotic methods are the treatment of choice. Suggestion therapy is effective when it tells the patient that they have the capability to resist the urge to cough. Medicines are generally not successful in the absence of suggestion therapy. Relapses and remissions are common and continuation of the symptoms is also common.

**Keywords:** Cough; Functional Disorder; Habit Cough

### Introduction

Cough is one of the most common complaints of patients seeking a physician's care [1]. European Respiratory Society guidelines define cough as “forced expulsive manoeuvre or manoeuvres against a closed glottis that are associated with a characteristic sound or sounds” [2]. Even with a clear diagnosis, Sometimes cough can be difficult to control and, for the patient, can be associated with impaired quality of life. Cough is said to be chronic if the duration of cough exceeds 4 weeks in paediatrics and 8 weeks in adult [3]. Up to 46% cases of chronic cough in secondary care settings have an unexplained cough, despite extensive investigation and treatment trials [4]. One of the most puzzling entities among the category of chronic cough is “psychogenic cough”. Over the years, because of its dubious nature, it has acquired various

nomenclatures, such as “nervous cough”, “operant cough”, “psychogenic cough tic”, “habit cough”, “Cough tic”, “Honking cough” and “barking cough of puberty” [5]. Psychogenic cough is defined as a chronic cough that occurs in the absence of any underlying disease. It is usually loud and harsh, honking or barking in nature, persistent and disruptive to routine activity [6]. Psychogenic cough can be challenging to diagnose and treat in everyday clinical practice. It may become a debilitating condition of chronic course that can significantly interfere with work and social relationships. It is mostly seen in children, however, there are few clinical reports in adult population. Although ‘psychogenic cough’ is not rare, very few detailed descriptions are available in the published reports [7,8]. We are presenting here a case of 14 year girl old adolescent girl with Psychogenic habitus cough with characteristic barking sound.

## Case Report

A 14 year old adolescent girl belonging to middle socioeconomic status, Hindu, Joint family living in rural area presented in the Psychiatry OPD with complaints of recurrent barking expiratory sound and headache of acute onset leading to significant socio-occupation impairment. No predisposing or perpetuating factor could be elicited. According to patient and her family members, she was apparently asymptomatic 1 ½ month back when she was functioning well in her home and studies when she developed the sensation of choking and dryness in throat and she started clearing the throat which quickly changed to sudden forceful expiration and production of loud barking like sound simulating a cough. During production of the sound there was a tilt in the neck to left side and also bending of head down. Patient continuously produced the sound all day. This sound abated on distraction in tasks of her interest like drawing, watching T.V. and during sleep. The other biological functions like chewing and swallowing were normal. There was no association of sputum production, difficulty in breathing or swallowing, fever, posture or physical exertion. She also developed off and on headache which was mild to moderate in intensity, constricting band type in character and not associated with nausea, vomiting, photophobia or phonophobia. Headache occurred any time of day and persisted for several hours and was relieved with rest or massage. There was no relation to reading, neck movement or any associated pain, redness or watering of eyes. Her sleep, appetite and personal care remained normal during the course of illness. She maintained her normal routine activities at home and her behaviour towards the family members remained cordial. However she stopped going to school and attending tuition classes at home due to the illness. The family members consulted an ENT specialist for her cough who found no apparent cause of cough on examination or investigations. She was subsequently referred to a Respiratory Medicine super specialist and she was examined and investigated thoroughly. All investigations were found to be within normal limits. Patient was prescribed multiple medications like steroid inhalers, oral anti-histaminics without any improvement. Hence the patient was referred to BHU Respiratory medicine OPD from where she was referred to Psychiatry OPD and admitted in the Psychiatry ward for detailed evaluation and management. There was no significant history of any respiratory or medical disorder causing cough or any past psychiatric history. There was history of slightly

similar dry cough 1 year back for which family members consulted a general physician and was prescribed anti histaminics and corticosteroids. She improved completely after 1 week of treatment.

Patient's father was the head of the family and chief decision maker. Her mother was the primary care giver. The family members had cordial interpersonal relations and there was no family history of psychiatric illness. Patient's birth and development history was uneventful. She was average in studies and was respectful towards the teachers. She had an easy going pre-morbid temperament and had cordial relationship with her family and peer group.

Her general physical examination was found to be within normal limits. Her routine blood investigations (including a complete blood count), chest X ray, pulmonary function test and bronchoscopy did not reveal any abnormal findings.

Her mental status examination revealed anxiety provoking thoughts predominant with cough. There were no ideas of hopelessness, helplessness, worthlessness or suicidal ideation.

Several psychotherapy sessions were held with the patient. During the initial sessions patient was comfortable in talking about all aspects of her life, her relations with family members and peers except for her teachers. On probing further she showed marked anxiety in talking about her tuition teacher and started crying. In the fourth psychotherapy session, upon putting forth several leading questions patient revealed that her tuition teacher often tried to harass her sexually and had also threatened her not to tell about it to the family members. The patient was highly anxious and cried throughout the narration. In the later psychotherapy sessions she showed progressively decreasing anxiety about the stressor and remarkable improvement in cough.

## Management

She was started with tablet Escitalopram (5mg) in divided doses twice a day, tablet Clonazepam (0.25 mg) in divided doses twice a day initially for a week, thereafter was tapered and stopped. The patient was maintained on relaxation exercises and supportive psychotherapy, and within a span of two weeks showed substantial

improvement in her condition. Family was taken into confidence to ensure further safety of patient and legal option were discussed with her parents. Behavioural management approaches adopted were reassurance, encouraging resumption to normal daily activities and functioning, encouraging physical exercise and play, engaging in age-appropriate activity of interest, encouraging joint activities with parents, praise and appreciation for positive behaviour she was discharged after twenty days in satisfactory condition. A follow up six months later revealed a fully functional young girl performing at her pre morbid level.

## Discussion

Habit cough is often a debilitating disorder that can impair patient's quality of life. It can occur in paediatric and adult patients, and even though patients may not be concerned about their symptoms, the symptoms are bothersome to others, such as family members, health care professionals, and educational staff. Habit cough is a diagnosis of exclusion, the diagnosis of psychogenic cough should only be made after an extensive evaluation has been performed that includes ruling out tic disorder. It may represent a somatic manifestation of a wide range of psychological problems in adolescent such as Exam phobia, attention seeking, or Social anxiety [9] or as seen in our case report it may be associated with physical and sexual abuse. Berman, however, describing several patients in whom no obvious psychological abnormality was found considered the cough in these cases to be a habit formed after previous respiratory diseases, and it should be noted that in 27% of the patients there was a history of upper respiratory infection preceding the cough [10]. A cough of psychogenic origin has well defined clinical characteristics. It is usually non productive croupy, barky, and explosive and disappears during sleep. It is resistant to antitussive medications. A typical 'chin on chest' posture with the hand held to the neck while coughing may be noticed in some of the patients. Increase in the intensity of cough in the presence of certain people or when the patient understands that he/she is being observed, the cough is not aggravated by laughter, exertion, crying, or any change in environment [11]. The vocal tics also presents similarly, the difference can be elicited by carefully studying the individual. Patients of Tic disorder are typically anxious, self-conscious and ashamed, about their tics whereas patients with psychogenic coughs show typical "la belle indifference". Tic disorder also usually present

with associated motor tics which are absent in psychogenic cough. There is also strong family history in tic disorders in contrast to psychogenic cough [12].

In mild and uncomplicated cases the treatment is usually explanation, suggestion, and discussion of the problems that appear to be associated with the psychogenic origin of the cough. In severe and problematic cases referral for psychiatric consultation should be considered. Psychotherapy, behaviour therapy, relaxation techniques, hypnosis, reassurance, and counselling are the most recommended methods of intervention in habit cough. The Food and Drug Administration has not approved any medication for the treatment of psychogenic cough. There is limited research on the role of pharmacotherapy in these cases. Researchers have suggested the role of selective serotonin reuptake inhibitors (SSRIs) in the management of co-morbid anxiety disorders in these cases, with Escitalopram showing a favourable side effect profile in long-term therapy [13]. We took a combined approach of treating the patient with Escitalopram along with parental education, Psychotherapy, Relaxation and behavioural techniques to which the patient responded significantly. This case report thus highlights the need to identify cause of psychological stress proper assessment and psychological management as Habit cough.

## Conclusion

It is important to consider habit cough in the differential diagnosis of chronic cough, especially in patients in whom no etiological cause could be found or who do not respond to typical management for other more common causes of cough. Correctly diagnosing and treating habit cough can help avoid unnecessary interventions and iatrogenic complications.

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