

# Intractable Sneezing: Case Report and Literature Review

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## Abstract

Sneezing is usually the physiologic response to nasal irritation but intractable paroxysmal sneezing is very uncommon. Various causative factors have been identified in the literature; these include psychologic problems, cervical lymphadenitis, epilepsy, and allergy. Majority of cases of intractable sneezing are reported among adolescents and are psychogenic in origin. We report one young lady with intractable paroxysmal sneezing in whom the removal of psychogenic stressors resulted in complete remission. The sneezing was continuous but did not occur while talking or sleeping, and did not respond to antihistamines, steroids and bronchodilators. The authors discuss the patients' treatment and outcomes and the pathophysiology of intractable paroxysmal sneezing.

**Keywords:** Sneezing, intractable.

## INTRODUCTION

Sneezing is a common symptom but intractable paroxysmal sneezing is very uncommon. Intractable paroxysmal sneezing is a clinical entity that was initially described in 1949 by Shilkrel. Since then about 50 cases have been reported, mainly among adolescents and children and of these, majority were psychogenic in origin. The common features of intractable sneezing are: (i) It is more common in adolescents and females appear to be affected more often than males; (ii) the individuals do not sneeze while asleep and they sneeze with their eyes open; (iii) generally the sneezing is refractory to a wide variety of medications but respond well to psychological measures such as psychotherapy, biofeedback, relaxation exercises and hypnosis whereas the organic sneezing respond to topical nasal anesthesia (iv) the psychogenic sneezing consists of an "aborted" or pseudosneeze and generally has little or no inspiratory phase, short nasal grunting and little or no aerosolization of the nasal mucous secretions; (v) one can often, but not always, elicit a significant psychiatric history; and finally, (vi) despite the continuous sneezing, the physical examination and relevant investigations are normal.

In addition to psychogenic origin of sneezing, it can originate due to allergic, infectious or local nasal cause,

central nervous system (epilepsy, infarct), vasomotor causes or tubercular cervical adenitis, triethanolamine sensitivity or multifactorial causation.

The sneeze reflex consists of two phases, nasal and respiratory, which are mediated by cranial nerves V and VII and by brain-stem respiratory centers. Hypotheses that have been proposed to explain the multiple causation of sneezing are the concept of the trigeminal system as a central neuronal pool, optic-trigeminal summation, and parasympathetic generalization

## CASE REPORT

A 32 years old married female, graduate and homemaker was brought by her mother-in-law for complaints of continuous sneezing and heaviness in head for last three days. The patient was normal about three days back when she suddenly started having sneezing and heaviness of head. There was no associated nasal discharge, lacrimation or cough. The sneezing was continuous but did not occur while talking or during sleep. There was no past history of allergy, breathlessness or skin eruptions. Before being referred for psychiatric evaluation, the patient was given a trial of antihistaminics, steroids and bronchodilators but without any improvement. ENT examination including local nasal

examination, diagnostic nasal endoscopy (DNE), Absolute eosinophil count (AEC), X-ray nasal sinuses and CT scan nose/PNS and head were normal. The patient was referred for psychological evaluation. All the medications were gradually tapered off and on detailed psychological evaluation in two sessions, it was found that the patient's husband worked abroad and had not visited her for 6 months, she was staying with her in-laws with a 3 years old daughter. Her relations with her in-laws were not very cordial. The patient was not treated well by the family members. The patient was diagnosed as a case of somatoform conversion disorder. The patient was started on Tablet alprazolam at a dose of 1 mg daily in divided doses and was given suggestion, distraction and explanation of the nature of symptoms. The in-laws were also counselled about the nature of illness, its onset and perpetuation. There was a gradual fall in the frequency of sneezing followed by complete remission. On following her up for another month, sneezing did not recur.

## DISCUSSION

The case matched the criteria of intractable paroxysmal sneezing except for the age of the patient. The examination and investigations were normal, psychogenic stressors were recognized and once the psychogenic nature of symptoms, their onset (due to underlying stress) and their perpetuation (due to secondary gain) were explained initially to the relatives and later on to the patient, there was an improvement followed by remission of sneezing. The role of anxiolytic drugs lies in reducing underlying anxiety and making the patient more amenable to psychotherapy. There is role of supportive psychotherapy (i.e. explanation of nature of illness, suggestion to overcome symptoms) and behavior therapy (reward when there is symptom reduction, aversion therapy, hypnosis and relaxation).

It must be emphasized that most of the reported cases of intractable sneezing are psychogenic in nature, particularly in adolescent patients. The diagnosis therefore must be considered when confronting such patients in order to avoid an unnecessary extensive medical evaluation and unneeded medications, parental anxiety and effect on school performance. Discovery of the specific psychogenic triggering event and avoidance of secondary gain (or attention) can sometime ameliorate the symptoms.

## CONCLUSION

Sneezing alone can be caused by foreign substances, odors, chemical irritants, allergies, and other less common factors. Psychogenic intractable sneezing, although not a particularly common disease, occurs mainly in adolescent girls for which a cause may not be found. Psychogenic intractable sneezing is a real disease. Although other diseases may be considered, the work-up may merely include an extensive history and physical examination. Many treatments have been tried with varying success, including those that incorporate psychotherapy. A variation of suggestion therapy is offered as a unique treatment modality.

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