

Audible clicking sound in psychogenic palatal tremor



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Abstract

Palatal tremor, commonly called palatal myoclonus, is a rare movement disorder characterized by rhythmic contractions of the soft palate and associated with variable objective tinnitus. It may be categorized as symptomatic, essential or psychogenic. Mostly it is symptomatic because of secondary damage in brainstem or cerebellum; rarely it can be essential in the absence of brain lesions. We describe a case of young boy, who presented with palatal tremor with objective tinnitus. Most of the movement disorders may raise suspicion of psychogenic nature and vice-versa, however, this case highlights the need of careful history and keen observation of movements.

Key Words: Palatal tremor; Palatal myoclonus; Psychogenic disorder; Objective tinnitus

Introduction

Palatal tremor is also known as palatal myoclonus. The term palatal tremor is appropriate because it correlates better with the neurophysiological study. It is a rare movement disorder characterized by rhythmic contractions of soft palate and associated with variable audible clicking sound. It may be classified into essential, symptomatic or psychogenic type. Mostly palatal tremor is symptomatic because of secondary damage in brainstem or cerebellum. Rarely, it is categorized as essential in which no brain abnormality is identified. There have also been reports of psychogenic palatal tremor in association with other neuropsychiatric illnesses [1].

Case Presentation

An 18-year-old boy born out of non-consanguineous marriage with normal birth and developmental milestone, presented with loud audible clicking sound and abnormal palatal movement for six months. These movements used to worsen during stress and improve with sleep. He had no abnormal behaviour, mood disorders, seizures or abnormal limb movement. There was no history of similar illness or psychiatric disorder in family members. The oropharyngeal examination showed abnormal high frequency (approximately 100 Hz) palatal movement on both sides [Video]. There was associated rhythmic contraction of soft palate, tensor veli palatini and levator veli palatini muscles. These movements were associated with loud audible clicking sound (tinnitus). During examination, suggestion (inducing by thinking of it) and distraction (mind diversion by concentrating on motor and cognitive functions like performing complex movements, reading, thinking or calculations) methods were used to demonstrate voluntary control of these movements. The patient was asked to voluntarily suppress and induce these movements. Surprisingly, he was able to suppress and induce these movements. Cumulative examination findings (suggestibility, distractibility, worsening during stress, suppression during sleep) demonstrated voluntary control of palatal movement. Rest of the findings including general physical, otolaryngological and neurological examinations were unremarkable.

Complete blood count, serum biochemistry including transaminases, lactate and pyruvate, ammonia, ceruloplasmin and copper levels, plasma amino acids, thyroid function tests and antinuclear antibody (ANA) were normal. Slit lamp examination did not show K-F (Kayser-Fleischer) ring. Audiometry and <https://assignbuster.com/audible-clicking-sound-in-psychogenic-palatal-tremor/>

electroencephalography (EEG), magnetic resonance imaging (MRI) of brain with thin cuts focusing on brainstem [Figure 1] and MR angiography were normal. The patient was uncooperative for electromyography (EMG) study. Psychiatric opinion including detailed psychological analysis was obtained. Finally, a diagnosis of psychogenic palatal myoclonus was made. He was counselled along with placebo therapy. He was asymptomatic at discharge. After six months followup, he is symptoms free.

Discussion

Palatal tremor, also known as palatal myoclonus, is an abnormal movement of the soft palate. The term “ palatal tremor” is more appropriate because it corresponds better with the electromyographic (EMG) characteristics of the rhythmic movements. It may be classified into essential, symptomatic (secondary) or psychogenic. Deuschl *et al*/ described that the movement of the soft palate is due to contraction of tensor veli palatini muscle in essential palatal tremor and contraction of levator veli palatini muscle in secondary palatal tremor [2, 3]. The contraction of these muscles result in closure of eustachian tubes and produce audible clicking sound.

Essential type of palatal tremor mostly occur in children. The patients with essential palatal tremor usually have an audible ear clicking sound (objective tinnitus). Although essential palatal tremor has a benign course and usually disappears spontaneously, it is very annoying for the patient as well as to the bystander due to continuous audible clicking sound. The brain is normal in essential palatal tremor. It is usually bilateral and disappears during sleep. The etiopathology of essential palatal tremor is not known. Fernandez-

Alvarez classified essential palatal tremor under transient primary movement disorders of childhood [4].

The symptomatic or secondary palatal tremor is mostly seen in adult males. It is usually associated with hypertrophy of the inferior olives; however, its precise role in causing palatal tremor has not been established [5]. It can be a consequence of trauma, infections, encephalitis [6], degenerative lesions, vascular, Krabbe's disease [7] or tumors of the cerebellum [8] or brainstem. Usually, there is no associated audible tinnitus and movements persist during sleep. It is usually unilateral and associated with neurological deficits.

Many movement disorders raise suspicion of psychogenic nature and vice-versa; palatal tremor can also be a part of psychogenic spectrum. Few cases of psychogenic palatal tremor have been described in the literature [9, 10]. The closest differential diagnosis is essential palatal tremor, which may have audible clicking sound, disappear during sleep and have normal neuroimaging studies. Voluntary inhibition of palatal tremor is also possible in some cases of essential palatal tremor [11]. Psychogenic palatal tremor often have various psychiatric symptoms (anxiety disorders). These movements are characterized by variable frequency, increased during stress and attention, suppression when distracted; disappear during sleep, marked improvement with placebo and psychotherapy. During examination, suggestion (inducing by thinking of it) and distraction (mind diversion by concentrating on cognitive and motor functions like thinking, reading, calculations or performing complex movements) methods can be used on patients to demonstrate voluntary control of these movements. Our patient had acquired special motor skills to both induce and suppress voluntarily

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rather than inhibition of involuntary movements. These showed complete voluntary control of movements and suggested a psychogenic etiology. The underlying psychiatric illness is a conversion disorder in most of the cases described in literature. The possibility of essential palatal tremor is ruled out by detailed clinical, psychological and laboratory examination. Our patient improved abruptly on suggestion, placebo and psychotherapy.

Psychogenic palatal tremor is a treatable disorder. A detailed psychoanalysis should be an essential part of management [12]. The patient should be managed with a combination of psychotherapy, anxiolytics and antipsychotic drugs. The psychogenic palatal tremor usually responds well to placebo and psychotherapy.

Conclusion

Palatal tremor is attributed to organic lesion of the brain; however, occasionally it may be due to psychogenic etiology. In our patient, movements were intermittent; used to worsen during attention, suppress during distraction and voluntary control on suggestion. All these features suggest psychogenic palatal tremor. Here we emphasize the detailed clinical and psychogenic evaluation of the patient and need for psychiatric treatment in these cases.

Figure and Video Legends

Figure 1. Magnetic resonance imaging of brain with contrast showed normal study. T1-weighted (a), T2-weighted (b), Fluid-attenuated inversion recovery (FLAIR) (c) and T1-contrast (d).

Video Clip. The oropharyngeal examination showed high frequency (approximately 100 Hz) palatal movement on both sides. There is associated rhythmic contraction of soft palate, tensor veli palatini and levator veli palatini muscles. These movements are associated with loud audible clicking sound (tinnitus). During examination, suggestion by thinking of it and distractions in form of mind diversion by concentrating on motor and cognitive functions like performing complex movements, reading, thinking or calculations were used to demonstrate voluntary control of these movements. He was able to suppress and induce these movements voluntarily.

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