

# Pharmacological Treatment of bruxism in the Elderly; A Letter to Editor

Reza Bidaki<sup>1,2</sup> and Sahar Bijari<sup>\*3</sup>

<sup>1</sup>Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, IR Iran

<sup>2</sup>Diabetes Research Center, Shahid Sadoughi University of Medical Sciences, IR Iran

<sup>3</sup>Department of Elderly Health, Shahid Sadoughi University of Medical Sciences, Iran

**\*Corresponding author:** Sahar Bijari, Department of Elderly Health, Shahid Sadoughi University of Medical Sciences, Iran



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## ABSTRACT

**Keywords:** Treatment; Elderly; Medicine

**Abbreviations:** TMJ: Temporomandibular Joint; SSRIs: Serotonin Reuptake Inhibitors; REM: Rapid Eye Movement

## Editorial

Bruxism is one of the most important challenges in old age because many families suffer from it because of its abnormal sound that causes discomfort and suffering to others or is so severe as to cause injury and also that there are definite treatment for This disease does not exist. A wide range of conditions and symptoms, including hardening, grinding, and grinding of teeth, are considered a subset of Bruxism, the most common functional activity of the oral area, and a stomatognathic type that occurs during sleep and wakefulness [1-4]. Symptoms include severe facial muscle contraction, tooth wear, tooth mobility, pain in the temporomandibular joint (TMJ) or jaw muscle, temporal headache and poor sleep, loss of occlusal morphology, and flattening of occlusal surfaces [3,5]. Determining the exact prevalence of bruxism is difficult because most population studies, due to technical / cost constraints, are usually based on self-report questionnaires and more than 80% are unaware of their habit. In most studies, about 13% of middle-aged adults and only 3% of older people brush their teeth while sleeping [6]. Currently, there is no specific treatment that can stop bruxism in sleep, the management of bruxism relies on recognizing the potential factors associated with the deterioration

of bruxism. Which is usually aimed at protecting / restoring teeth, reducing bruxism and relieving pain [3]. Although the use of a variety of drugs has been reported to manage bruxism, only clonidine, L-dopa, and clonazepam have been shown to reduce symptoms in controlled clinical trials. When compared with placebo, clonazepam significantly reduces the index of bruxism. It also improves sleep quality, sleep continuity, improves sleep duration, reduces arousal, as well as reduces mental sleep and improves the quality of waking up. It is also recommended to limit its long-term use due to the risk of dependence and other psychological side effects [6].

Topically administered botulinum toxin (BTX type A) has also been used to manage bruxism [7,8]. BTX-A is a peripheral cholinergic synapse blocking agent that is considered resistant to conventional treatment for patients with severe gritted teeth, especially those with movement disorders. BTX-A has been shown to reduce the number and severity of bruxism in clinical trials. An injection of BTX-A for at least one month was effective in controlling bruxism. Possible side effects of BTX-A master injection include difficulty breathing, speech disorder, muscle pain, and secondary facial asymmetry to reduced muscle size due to master atrophy

[6]. Short-term use of dopamine precursors such as L-dopa inhibits bruxism, and long-term use of L-dopa increases bruxism, serotonin reuptake inhibitors (SSRIs), which have an indirect effect on the dopaminergic system. They may cause teeth to grind after prolonged use. Amphetamine, which increases the concentration of dopamine by facilitating its secretion, causes gnashing of teeth. Nicotine has also been shown to stimulate central dopaminergic activity, which may explain why smokers report twice as much bruising as non-smokers [9]. Other medications include the use of bromocriptine, propranolol, buspirone, anxiolytics, sedatives, and muscle relaxants. Medications such as diazepam can be prescribed for several days to change sleep disorders and anxiety levels. Low doses of tricyclic antidepressants may be used to prevent rapid eye movement (REM) sleep [10,11]. Since the definitive treatment for bruxism is not known but the use of medications Clonidine, clonazepam, sedatives and antidepressants are the most common treatments. It is a medicine that has been used in medicine.

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### Conflict of Interest

None.

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