

Abstract I

De la Torre Canales G, Câmara-Souza MB, do Amaral CF, Garcia RC2, Manfredini D. Is there enough evidence to use botulinum toxin injections for bruxism management? A systematic literature review. *Clin Oral Investig.* 2017 Apr;21(3):727-734.

OBJECTIVE:

The objective of the study was to conduct a systematic review of the literature assessing the effects of botulinum toxin (BoNT-A) injections in the management of bruxism.

MATERIALS AND METHODS:

Search for articles involved the PubMed, Scopus, Web of Science, Embase, Cochrane, Scielo and Lilacs databases. Specific terms were used and the search carried out from 1980 to March 2016 by three independent researchers. Randomized controlled studies (RCTs), prospective and before-after studies that applied BoNT-A at the masseter and/or temporalis muscles were included.

RESULTS:

Three RCTs and two uncontrolled before-after studies out of 904 identified citations were included in this review. All five articles dealt with sleep bruxism and featured a small sample size. None of them was about awake bruxism. Two randomized clinical trials were double-blinded, with a control group using saline solution. Two studies used polysomnography/electromyography for sleep bruxism diagnosis, whilst others were based on history taking and clinical examination. All studies using subjective evaluations for pain and jaw stiffness showed positive results for the BoNT-A treatment. In contrast, the two studies using objective evaluations did not demonstrate any reduction in bruxism episodes, but a decrease in the intensity of muscles contractions.

CONCLUSION:

Despite the paucity of works on the topic, BoNT-A seems to be a possible management option for sleep bruxism, minimizing symptoms and reducing the intensity of muscle contractions, although further studies are necessary especially as far as the treatment indications for bruxism itself is concerned.

CLINICAL RELEVANCE:

BoNT-A has been increasingly diffused in dentistry over recent years, being also used for pain management in patients with bruxism. Nonetheless, there is no consensus about its effects in this disorder.