Cervical spine musculature

Hypertonia and hyperactivity of masticatory muscles are involved in pain and contractions of the cervical spine musculature, but their pathophysiology remains nonetheless unknown and its treatment far to be codified.

In 8 patients, showing disabling posterior neck muscle contractures linked with bruxism were prospectively treated and followed for an average 15 months period, after having received Injections of botulinum toxin A essentially in masticatory muscles. Injections were made every 3 months, varying from 10 to 100 U Botox* by muscles, without administrating more than 300 U Botox* in the same patient. The angle of cervical lordosis were calculated on lateral sitting radiographs in neutral position, good results being considered to be achieved in the case of a 2 point diminution of VAS score as well as at least a 5° positive gain in the curve. 7 patients out of 8 showed a real improvement in their symptoms after an average of 3 injections, showing a decrease of 4.5 points on the VAS score and an average increment of 15° in cervical lordosis. Although the follow-up period of patients was relatively short and the sample quite small, the general impression, confirmed by the patients' experience, seems to suggest a potential place for the use of botulinum toxin amongst the array of treatments which can be offered in certain selected cases which associate bruxism and posterior cervical contractions [1)]

1)
Finiels PJ, Batifol D. The use of botulinum toxin in the treatment of the consequences of bruxism on cervical spine musculature. Toxicon. 2014 Jan 22;80C:58-63. doi: 10.1016/j.toxicon.2014.01.004. [Epub ahead of print] PubMed PMID: 24462662.