CAN TREATMENT OF BRUXISM REDUCE MIGRAINE PAIN?

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Introduction

Bruxism is the parafunctional activity including clenching and grinding of the teeth. Previous studies reported an association between sleep bruxism and painful temporomandibular joint dysfunctions as a risk factor for migraine. Although botulinum toxin has been successfully used for treatment of temporomandibular myofacial pain, high cost and adverse effects such as local muscle weakness, facial asymmetry, dry mouth, and muscle atrophy limit its use. We aimed to explore the effectiveness of repetitive injections of local anesthetic containing lidocaine to masseter and/or temporalis muscles among chronic migraine patients with bruxism in reduction of headache frequency, intensity, and improvement of depressive and anxiety symptoms.

Methods

In this retrospective cohort study, 67 chronic migraine patients with bruxism were enrolled. Sleep bruxism was diagnosed by clinical criteria proposed by the American Academy of Sleep Medicine. Presence of hypertrophy of the masseter and temporalis muscles, abnormal tooth wear, jaw muscle tenderness or pain on digital palpation were examined. A mixture of local anaesthetic 0.5 ml of 2% lidocaine and 0.5 ml of saline solution was injected at the masseter and/or temporal muscle sites. The pain intensity (by Visual analogue scale, 0-10cm) and frequency of headache were collected by a headache diary. Beck depression and anxiety inventories (BDI and BAI) and The MIDAS (Migraine Disability Assessment) questionnaire were performed before and after injections.

Results

The intensity, frequency and duration of migraine attacks, and the scores of MIDAS, BDI and BAI were significantly improved after treatment (all p values <0.05). Clinical examination indicated significant reduction in bruxism.

Conclusions

Treating bruxism contributes significant reductions in pain severity, disability and psychiatric symptom scores at 3 months following injection. The results of this study demonstrated that repetitive injections of local anesthetics for myofascial spasms may be an effective and safe treatment option for chronic migraine patients with bruxism.