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A Migraine Treatment Patients Can Really Sink Their Teeth Into

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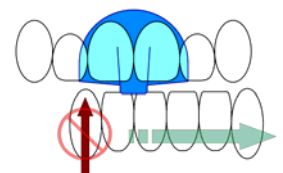
Conventional pharmacotherapies for migraine headache can have undesirable systemic side effects, and medications currently accepted for prophylactic treatment (e.g., propranolol, amitriptyline, verapamil) rarely have a better than 55 percent efficacy. Furthermore, the potential teratogenic effects of some migraine prophylactic agents (e.g., divalproic sodium) make birth control a necessity in women of childbearing age. Along with these shortcomings, compliance becomes an issue; frequently, transformation to chronic daily headache occurs.

A new non-pharmacologic method for prophylactic treatment of medically diagnosed migraine pain as well as tension-type headaches, called the Nociceptive Trigeminal Inhibition Tension Suppression System, is an intra-oral device that reduces trigeminally-mediated muscular activity and the resultant noxious afferent input. In patients with migraine and tension-type headache, pericranial muscle tenderness (specifically of the temporalis) is a common complaint, frequently detectable upon palpation. Intraoral devices have been used to protect teeth from the intense hyperactivity of the trigeminally-innervated muscles of mastication, primarily the temporalis and masseter muscles.

These devices have no systemic effects and are thus safe in pregnancy, lactation and in elderly patients on multiple other medications. There are two types of intraoral devices now currently available: the traditional full-occlusal splints and dis-occlusion splints. The full-occlusal splint covers all of the teeth. Such splints still allow hyperactivity to perpetuate or intensify for as least 50 percent of patients by providing the necessary resistance to clench on. A dis-occlusion splint allows only reciprocating anterior incisor contacts, thereby inhibiting trigeminally-innervated pericranial muscular contraction (most notably, of the temporalis) to less than a third of maximum.

Nocturnal trigeminal motor hyperactivity and the resultant noxious afferent input can be interrupted by a dis-occlusion splint such as the NTI and allows the practitioner to give his patient a non-pharmaceutical option for migraine prevention. The NTI device is essentially a prefabricated matrix which a dentist custom fits to the patient. When used during times of muscular parafunction (i.e., during nocturnal jaw clenching, a common trait of migraineurs) the NTI device has been shown to reduce migraine events by 77 percent in 82 percent of subjects.

The NTI Tension Suppression System (NTI-tss), reduces the probability of posterior and canine contact during excursive mandibular movements, thereby reducing the opportunity for temporalis contraction intensity.



Additional information is available at www.MigrainePrevention.com

