

Abstract 3 – November 2016

Hara K, Shinozaki T, Okada-Ogawa A, Matsukawa Y, Dezawa K, Nakaya Y, Chen JY, Noma N, Oka S, Iwata K, Imamura Y. Headache attributed to temporomandibular disorders and masticatory myofascial pain. *J Oral Sci.* 2016;58(2):195-204.

We investigated the temporal association between temporomandibular disorders (TMD)-related symptoms and headache during TMD treatment for patients who fulfilled the diagnostic criteria for headache attributed to TMD (HATMD) specified in the Diagnostic criteria for TMD (DC/TMD) and International classification of headache disorders (ICHD)-3 beta. The study enrolled 34 patients with HATMD induced by masticatory myofascial pain but not by temporomandibular arthralgia. Facial pain intensity, the pressure pain threshold of pericranial muscles, and maximum unassisted opening of the jaw were assessed at an initial examination and before and after physical therapy. The intensity and frequency of headache episodes and tooth contact ratio were also recorded before and after the intervention. Headache intensity and frequency significantly decreased, and these reductions were temporally related to improvements in facial pain intensity, maximum unassisted opening, and pressure pain threshold during TMD treatment. Linear regression analysis showed significant correlations between facial pain intensity and headache intensity and between tooth contact ratio and pressure pain threshold. Among patients who fulfilled the DC/TMD and ICHD-3 beta diagnostic criteria for HATMD, headache improved during TMD treatment, and the improvement was temporally related to amelioration of TMD symptoms. These findings suggest that sensitization in the central and peripheral nervous systems is responsible for HATMD.