In Response to Letter to the Editor Regarding: Clinical Implications of Magnetic Resonance Imaging in Temporomandibular Disorders Patients Presenting Ear Fullness

Dear Editor:

In the study entitled “Migraine-Related Aural Fullness: A Potential Clinical Entity,” lifestyle changes and prophylactic treatment in migraine patients with isolated, prolonged ear fullness (EF) lead to a significant improvement in EF symptoms. In this regard, a causative relationship between migraine and prolonged EF could be inferred. However, one must be cautious in interpreting the results due to the potential limitations, including its small cohort, that elicit insufficient statistical significance. Also, five out of 11 subjects (46%) were not compatible with the IHS criteria for migraine, and there were no significant differences between migraine and nonmigraine groups regarding the posttreatment symptom changes. Given that migraine is a complex neurological condition characterized by recurrent episodes of pulsating headaches that show fluctuations in symptom severity and characteristics, verification of the plasticity of migraine-related EF following migraine therapy should be done through larger prospective studies.

In our study comprised of 42 ears with nonspecific EF, abnormal temporomandibular joint magnetic resonance imaging (TMJ-MRI) findings were observed in seven of nine ears without temporomandibular disorders (TMD)-related symptoms based on the Research Diagnostic Criteria/TMD guideline with high reliability and reproducibility. These results are in line with previous studies showing no association between the presence of TMD signs and abnormal TMJ-MRI findings. According to the previous study, we agree that some of our patients may have a migraine-related predisposition and could further benefit from additional migraine treatment considering the high rate of coexistence of the two independent disease entities. Prolonged nonspecific EF may be one of the clinical manifestations of migraine. Also, cortical spreading depression (CSD) that precipitates hypoperfusion may raise the risk for progressive tissue damage as well as endothelial dysfunction in the ear, causing nonspecific EF in patients presenting migraine with aura. However, the exact mechanisms linking migraine to nonspecific EF remain unclear. Furthermore, increasing evidence on the association between migraine and TMD may hinder the previous notion that those without TMD signs could have a migraine-related etiology.

We emphasized that 34 ears had anatomical abnormalities based on TMJ-MRI. The 34 ears with specific TMJ pathologies showed significant improvement in nonspecific EF after individualized TMJ treatment, suggesting a causative relationship between TMJ abnormalities on TMJ-MRI and nonspecific EF. Collectively, TMJ-MRI should be utilized to identify the pathognomonic findings that could be the underlying cause of nonspecific EF, despite the absence of evident TMD signs and symptoms.

SANG YEON LEE, MD ∘ DONG WOO NAM, MD and YOUNG HO KIM, MD, PhD
Department of Otorhinolaryngology, Head and Neck Surgery, Seoul National University College of Medicine, Seoul Metropolitan Government Seoul National University Boramae Medical Center, Seoul Republic of Korea

JI WOON PARK, DDS, PhD
Department of Oral Medicine and Oral Diagnosis, School of Dentistry and Dental Research Institute, Seoul National University, Seoul Republic of Korea

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