



Response to the letter regarding prolotherapy in temporomandibular disorders

Jeong-Kui Ku

Department of Oral and Maxillofacial Surgery, Section of Dentistry, Seoul National University Bundang Hospital, Seongnam, Korea

We appreciate the interest and insights regarding our recent study on the efficacy of dextrose prolotherapy in temporomandibular disorders (TMDs)¹. We would like to take this opportunity to address the concerns raised and clarify certain points.

Regarding the etiology of TMD, we acknowledge the importance of understanding its underlying pathophysiology. However, the primary objective of our study was to evaluate the effectiveness of hypertonic dextrose prolotherapy in alleviating chronic pain associated with TMD, irrespective of the underlying cause. While we recognize that classifying TMD into subcategories based on etiology is critical for some treatment modalities, our study focused on a broader application of prolotherapy to assess its generalizability and overall efficacy. We agree that future studies with stratified patient groups may provide deeper insights into the specific mechanisms and outcomes based on etiology.

We appreciate the concern raised regarding the potential chondrotoxicity of intra-articular lidocaine injections². However, our methodology involved auriculotemporal nerve blocks with lidocaine rather than direct intra-articular injections. This approach was specifically chosen to avoid potential adverse effects on joint structures while ensuring patient comfort. Additionally, the side effects and efficacy of intra-capsular injections remain controversial^{3,4}. Some authors support the clinical efficacy of intra-articular lidocaine injections for pain relief and improved mouth opening in TMD treat-

ment, arguing that the risk-benefit ratio favors this approach despite the potential risks associated with interventions such as arthrocentesis⁵.

Although the precise mechanisms and indications for prolotherapy are not yet fully established, we believe that prolotherapy represents a valuable alternative for addressing TMDs that do not respond to conventional treatments. Based on this case series, we acknowledge the need for further research, particularly in patients with degenerative joint disease (DJD) and other severe TMD conditions including open bite aspect. As noted in our discussion, we recognize the limitations of our retrospective study design and have already proposed larger, multi-center randomized controlled trials with stringent inclusion criteria and extended follow-ups. Such studies would better elucidate the long-term efficacy and safety of prolotherapy, particularly in complex cases involving DJD.

In conclusion, we appreciate the thoughtful critique of our study and the opportunity to clarify our methodology and objectives. We firmly believe that prolotherapy holds promise as a non-surgical intervention for TMD and look forward to contributing further data through prospective, controlled investigations.

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Conflict of Interest

No potential conflict of interest relevant to this article was reported.

Jeong-Kui Ku

Department of Oral and Maxillofacial Surgery, Section of Dentistry, Seoul National University Bundang Hospital, 82 Gumi-ro 173 Beon-gil, Bundang-gu, Seongnam 13620, Korea
TEL: +82-31-787-2780
E-mail: kujk123@gmail.com
ORCID: <https://orcid.org/0000-0003-1192-7066>

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