

Evidence-based practice in the treatment of temporomandibular disorders

Bu-Kyu Lee, D.D.S., M.S.D., Ph.D.

Section Editor for Temporomandibular Disorder/Orofacial Pain

Department of Oral and Maxillofacial Surgery, Asan Meidical Center, College of Medicine, Ulsan University, Seoul, Korea

Currently, evidence-based practice has increased attention in medicine as well as in dentistry. It is generally agreed that the strongest evidence is found in randomized controlled clinical trials. However, such studies are difficult to design and implement, and the results are not always easy to interpret and translate into clinical practice¹. The literature on temporomandibular disorders (TMDs) has over the years exhibited a great number of controversies, which have created much confusion, especially regarding the diagnosis and treatment of TMDs. The diverse definitions given to TMDs during last decades indicate different views on their etiology, which have had a different treatment option on the management of patients. This initiated the creation of the Research Diagnostic Criteria for TMD (RDC/TMD)². Even if the RDC/TMD was an improvement compared to the previous lack of uniform definitions it was not without faults and some criticism was eventually published^{3,4}. An extensive validation and revision process of the RDC/TMD was recently presented⁵. A committee from the Neuroscience Group of the American Association for Dental Research (AADR) has worked on a revised version to reach broader acceptance and, after a 3-year process, the AADR accepted the new statement in March 2010⁶. The following is a condensed summary of the statement: A. Differential diagnosis of TMDs should be based on patient's history, clinical examination and, when indicated, imaging procedures (suggesting that adjunct diagnostic methods without good evidence should be avoided). B. Treatment of TMD patients should use conservative, reversible and evidence-based therapeutic modalities (which excludes occlusal adjustment).

C. Professional treatment should be augmented by a home-care programme. Good evidences are critical to make reasonable clinical decisions without uncertainty. In fact, only a minority of all opinions that rule current activities in clinical dentistry, especially in the treatment of TMDs, are based on strong evidence. Therefore, a need for more research using systematic and controlled studies is important to be able to clear the remaining controversial questions and to improve the quality and security of clinical care. Clinical practice should be based on the best possible evidence and, include the clinical experience and expertise of the therapeutic team as well as the patients' wishes and preferences.

References

1. Pihlstrom BL, Barnett ML. Design, operation, and interpretation of clinical trials. *J Dent Res* 2010;89:759-72.
2. Dworkin SF, LeResche L. Research diagnostic criteria for temporomandibular disorders: review, criteria, examinations and specifications, critique. *J Craniomandib Disord* 1992;6:301-55.
3. Steenks MH, de Wijer A. Validity of the research diagnostic criteria for temporomandibular disorders axis I in clinical and research settings. *J Orofac Pain* 2009;23:9-16.
4. Naeije M, Kalaykova S, Visscher CM, Lobbezoo F. Evaluation of the research diagnostic criteria for temporomandibular disorders for the recognition of an anterior disc displacement with reduction. *J Orofac Pain* 2009;23:303-11.
5. Schiffman EL, Truelove EL, Ohrbach R, Anderson GC, John MT, List T, et al. The research diagnostic criteria for temporomandibular disorders. I: overview and methodology for assessment of validity. *J Orofac Pain* 2010;24:7-24.
6. American Association for Dental Research [Internet]. AADR TMD Policy Statement Revision. Approved by AADR Council 3/3/2010 [cited 2012 Sep 10]. Available from: <http://www.aadronline.org/i4a/pages/index.cfm?pageid=3465>.