Condyle Position and TMD – Diagnosis, Treatment and Prevention of TMD

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Abstract

Research today almost totally disregards occlusion as an etiological factor in TMD, however as the philosopher Karl Popper in his work "Knowledge and the Shaping of Reality", says "I regard scientific knowledge as the best and most important kind of knowledge we have, though I am far from regarding it as the only one", as a clinician I totally agree with Popper. After treating TMD patients for the last 25 years with a high level of success I do not understand how the literature can come to this conclusion and relegate occlusion as a minor factor in TMD. Maybe there is an answer, in a recent article Dr. Okeson stated the following regarding the literature and the studies relating TMD and occlusion, "the literature finds a minor relationship between occlusal factors and TMD. It should be noted, however, that these studies report on the static relationship of the teeth as well as the contact pattern of the teeth during various eccentric movements. This represents the traditional approach to evaluating occlusion. Perhaps these static relationships can provide only limited insight into the role of occlusion and TMD ". So when we read what Dr. Okeson says we can now
begin to think that maybe there is a relationship and if you stop and think about it without any bias and with an open mind, it is difficult to imagine a specialty that routinely and significantly changes a patient’s occlusal condition and would not have a powerful affect on the masticatory structures and their functions. If we take this to other dental specialists, most prosthodontists would be greatly concerned with developing a permanent occlusal position with no regard to joint position and even Dr. Jeff Okeson makes the following statement "the concept that orthodontic treatment has nothing to do with TMD is like stating that moving teeth anywhere will not influence how the patient functions. Certainly that is not the case in prosthodontics !!! As orthodontists we must achieve a musculoskeletal stable position and avoid posterior interferences that may lead to TMD. We know from Pullinger and Seligman that there are two factors that will determine whether an intracapsular disorder will develop: the degree of orthopedic instability, and the amount of loading. Orthopedic instabilities with discrepancies of 1 or 2mm are not likely significant enough to create a problem. However, as the discrepancy between the musculoskeletally stable position of the condyles and the maximum intercuspation of the teeth becomes greater, the risk of overload exists and thus intracapsular disorders increases. Taking this into account we now have a basis for treating patients with class II’s (much more common among this skeletal pattern) and when approached at a young age we can not
only correct the class II but also seat the condyle in the fossa and eliminate any possible fulcrums. This will help us achieve a musculoskeletal stable position and obtain orthopedic stability, thus reducing possible TMD factors.