

The significance of occlusion in TMD

Yrsa Le Bell, Turku Finland

The significance of occlusion and dental factors in the etiology of TMD is still a matter of controversy. The role of occlusion continues to be considered important by many clinicians and occlusal corrections are still being performed in the treatment of TMD. However, rejection of the old hypothesis concerning the role of occlusal factors in TMD has been suggested because of lack of evidence supporting the hypothesis. The opinions still suggesting a role for the occlusion in the etiology of TMD are nowadays often pejoratively labelled as mechanistic models. At the same time, new knowledge of psychosocial, behavioural and genetic factors has broadened the etiological view of TMD. However, it is crucial to realize that due to the multifactorial nature of most phenomena, a possible role for occlusion in the etiology of TMD does not exclude the role of other causative factors.

In recent randomized controlled trials (RCT), occlusal factors were shown to be a structural health risk for the stomatognathic system, and it was suggested that this should be considered in treatments that affect occlusion. However, it is important to understand that occlusion may have different effects in different subjects, as has also been suggested in another recent RCT. Accordingly, as also often seen clinically, many individuals adapt to occlusal disturbances, while others are more prone to develop TMD problems. Thus different adaptation capacities, psychosocial, behavioural and genetic factors as well as occlusion may all together play a role in the etiology of TMD. It is concluded that as long as there is no convincing evidence against occlusal factors, occlusion cannot be dismissed from the etiological concept or clinical context.