

Centric relation?intercuspal position discrepancy and its relationship with temporomandibular disorders. A systematic review

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Objective: The objective of this study is to assess the relationship between centric relation-intercuspal position discrepancy (CR-ICP discrepancy) and temporomandibular disorders (TMDs), by systematically reviewing the literature. **Materials and methods:** A systematic research was performed between 1960 and 2016 based on electronic databases: PubMed, Cochrane Library, Medline, Embase, Scopus, EBSCOhost, BIREME, Lilacs and Scielo, including all languages. Analytical observational clinical studies were identified. Two independent authors selected the articles. PICO format was used to analyze the studies. The Newcastle-Ottawa Scale (NOS) was used to verify the quality of the evidence. **Results:** Four hundred and sixty-seven potentially eligible articles were identified. Twenty studies were analyzed, being grouped according to intervention in studies in orthodontic patients (n = 3) and studies in subjects without intervention (n = 17). Quality of evidence was low, with an average score of 3.36 according to Newcastle-Ottawa Scale. In most studies, the presence of CR-ICP discrepancy is associated with the presence of muscle (pain) and joint disorders (noise, disc displacement, pain, crepitus, osteoarthritis and osteoarthrosis). However, the lack of consistency of the results reported reduces the validity of the studies making it impossible to draw any definite conclusions. **Conclusions:** Because of the heterogeneity of the design and methodology and the low quality of the articles reviewed, it is not possible to establish an association between CR-ICP discrepancy and TMD. The consequence of CR-ICP discrepancy on the presence of TMD requires further research, well-defined and validated diagnostic criteria and rigorous scientific methodologies. Longitudinal studies are needed to identify CR-ICP discrepancy

as a possible risk factor for the presence of TMD. © 2017 Acta Odontologica Scandinavica Society.

centric discrepancy

Centric relation

centric slide

temporomandibular disorders

temporomandibular joint

adult

female

human

incisor

longitudinal study

male

temporomandibular joint disorder

tooth occlusion

tooth radiography

Adult

Centric Relation

Dental Occlusion

Female

Humans

Incisor

Longitudinal Studies

Male

Temporomandibular Joint Disorders