



## Temporomandibular Joint and its Complexity in Diagnosis and Treatment - Reflections

### Eber Luis de Lima Stevao-Steolo\*

*Doctor of Dental Surgery; PhD in OMFS; Post-Doctorate at Baylor University Medical Center and Baylor College of Dentistry, International Oral and Maxillofacial Surgeon in Brazil, Germany and the USA*

**\*Corresponding Author:** Eber Luis de Lima Stevao-Steolo, Doctor of Dental Surgery; PhD in OMFS; Post-Doctorate at Baylor University Medical Center and Baylor College of Dentistry, International Oral and Maxillofacial Surgeon in Brazil, Germany and the USA.

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Professionals in Dentistry often read in Journals and recurrently listen in courses "The Temporomandibular Joint (TMJ) is a very complex joint, therefore, difficult to treat, so better not get involved but prescribe dental splint for your patient...". Well, I dare then to say the contrary, TMJ is one of the anatomically most studied and well-described joint of the human body and because it is part of the mandible, the presence or absence of teeth plays a minor but central role in its function. Moreover, medical conditions certainly are totally involved in the pathophysiology of diseases affecting this structure. Knowledge of the anatomical and microscopic structures involved, discernment of the relationship between a biaxial joint and an occlusion guided by specific muscles, insightful clinical medicine, correct diagnosis, proper treatment proposed for the unambiguous TMJ condition found, intense training in TMJ surgery for developing best surgical skills, and an extensive understanding of TMJ imaginology are directly related to the success of TMJ management.

Due to the TMJ origin, its location and profound relationship with the occlusion, mechanical specificity which involves a joint disc anatomically seated over the most superior-anterior aspect of the head of the condyle, and there kept in position by the anterior, posterior, medial and lateral ligaments, all locked inside the articular cavity by a capsule, a health or deranged TMJ can be appreciated. So, the articular disc has a crucial role for functional regeneration/repair of a damaged condyle as reported by Hayashi, et al. (2014) [1] in their excellent experimental animal study.

It is important to register here that TMJ diseases are staged as cancer is for more than three decades now, determined by the description of Wilkes in 1989 [2]. His (Wilkes) classification was modified by Stevao in 2014, [3] adding a very imperative component of miscellaneous clinical and surgical findings. There are several stages of the TMJ disease ranking from Class I (no internal

derangement) to Class V (severe disc displacement, deformity and degenerative condylar changes) and for each one of those stage there is a very specific type of management. There is no one single apology for not existing a common consensus among dentists and oral and maxillofacial surgeons, pathologists and radiologists on TMJ diagnosis. Not all stages require TMJ surgery but most of them have to be addressed with closed (arthroscopy) or open surgery. Up to this very moment, this is the consensus established by the, so far, largest meta-analysis study published by Al-Moraissi, et al. back in 2019 [4].

Part of the TMJ disease treatment encompasses patient education as well. Informing patients about their condition and the precise treatment should be done without professional emotional participation but conclusiveness.

After more than two decades treating patients in that category of TMJ problems I have learnt that patient do not impose barriers for an effective treatment but they will be very insecure if the professional who will be in charge of treating them is reluctant about the diagnosis and the certainty of the proposed treatment.

Many arguments deliberately are used for not treating or under-treating patients with arthrogenous TMJ disorders such as but not limited to: 1) Dental splints treat all TMJ cases, 2) My patient would never accept surgery as a treatment option, 3) There is no real treatment for TMJ disease, 4) TMJ disease has nothing to do with occlusion, 5) TMJ disease is a myogenous disorder, 6) Orthodontic treatment alone solves the problem, 7) Prosthetic dental treatment cures the joints, 8) Money driven surgeons always want to operate joints, 9) No proof of better outcome with surgical intervention, 10) Lack of willingness to work as a team, and 11) TMJ disease ultimately is only psychological problem - patients are sick

in their mind and not in the joints! Nevertheless, none of these excuses above presented have been scientifically proven, being no better than guessing dogmatism.

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