

REVIEW ARTICLE

SYMPTOMATOLOGY OF TMD

1,*Mouhibi, A., 2Chafii, A. and 3Andoh, A.

¹Department of Prothodontic-Occlusodontic-CCTD- CHU Casablanca

²University HASSAN II of Casablanca

³The Faculty of Dentistry of Casablanca

ARTICLE INFO

Article History:

Received 15th October, 2017

Received in revised form

19th November, 2017

Accepted 26th December, 2017

Published online 30th January, 2018

Keywords:

Symptomatology, TMD, Temporomandibular disorder, Occlusodontic, TMJ, Temporomandibular joint.

ABSTRACT

The oral cavity is an anatomical crossroads interesting several disciplines. In this sense, pathologies for this area may have impacts on other areas of the body. The symptoms seen in temporomandibular disorders (TMDs) are diverse and are not limited to ATMs or ringing ears, but can cause sleep disturbances, nausea, and other symptoms. For this, the practitioner must have knowledge on pathologies for this part of the body and must in some work in collaboration with other specialists from different medical fields to make a better service to patients consulting for this type of problems. Hence the realization of a multidisciplinary consultation bringing together ORLologist, ophthalmologist, maxillofacial surgeon, psychologist, dentist (occlusodontic), physiotherapist etc. The purpose of this work is to show through some need of this collaboration.

Copyright © 2018, Mouhibi et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

The oral cavity is a crossroad where a multitude of disciplines converge, the pathologies touching this sphere can have an impact on the whole organism. The symptomatology observed in TMJ may be heterogeneous and is not limited to the clicks of the TMJ or the ringing of the ears, but may be accompanied by sleep disturbances, nausea reflexes, and other symptoms. Given the complexity of these disorders, the Dentist is led to implement multidisciplinary therapeutic solutions, in collaboration with other specialists in the oral sphere (Stomatologist, Maxillofacial Surgeon and ORL).

Temporo-Mandibular Disorders

Temporo-Mandibular Disorders (TMD) = the symptomatic expression of a pathology of the manducatory apparatus that may be of muscular or articular origin. They encompass the anatomical, histological and functional abnormalities of the muscular and articular systems. (1) Prevalence studies: approximately 50 to 75% of patients have a DTM symptom but 5 to 12% require management. (2) The etiology is multifactorial; multiform, so the treatment modalities are many and varied. (3) The gutter remains the "gold standard" for myofascial pain and arthralgia. (1,3)

The main symptoms

The main symptoms are grouped according to the triad:

Noise: expressing all sound at the joints: Snap, Crunch, Crackle.

Pain: expressing any pain in the TMJ and surrounding structures

Dyskenia: expressing the deviation of the mandibular movements during the opening or the closing that it is with jump or not.

Tinnitus

Many people with temporomandibular joint problems also report tinnitus in different degrees and wonder if there may be a direct or indirect relationship between these two problems. Nothing is more uncertain. Although medicine and science have made progress in diagnosing tinnitus. This relationship has not yet been fully established and no predictable or infallible treatment exists. (4)

Migraine

In view of the sometimes controversial nature of research on the physiopathology of migraine, reference should be made to the work of Goadsby and Lance 1990.

*Corresponding author: Mouhibi, A.,
Department of Prothodontic-Occlusodontic-CCTD- CHU
Casablanca.

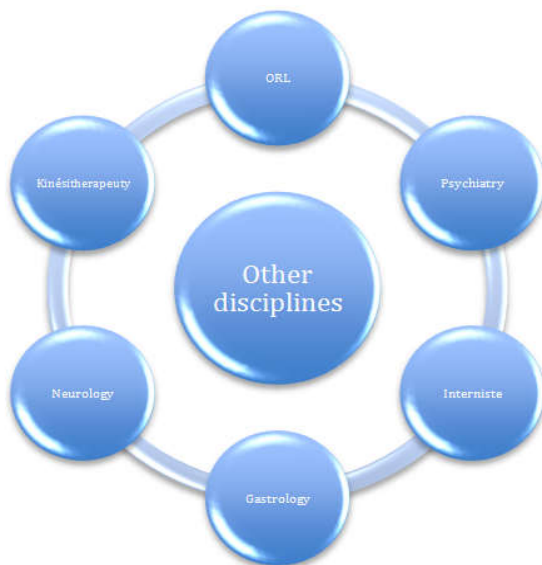
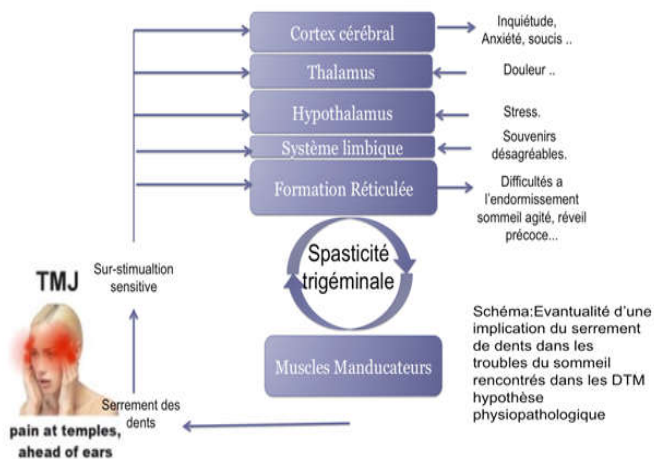


Diagram of other symptoms involved in the treatment of TMDs



The latter mention the role of excessive stimulation and a lack of control of the trigeminal pathways in triggering the migraine attack. Existence of SP-energetic trigeminal neurons, neurons, serotonergic at the dorsal raphe nucleus, and noradrenergic neurons at the locus coeruleus are known. All these neurons, via the fibers of the autonomic cranial system, would cause the variations of the intra- and extra-cranial blood flow involved in the migraine. It has been described in patients whose manducatory muscles are sensitive to palpation, the concomitant presence of tension headaches and migraines. (4,5)

Sleep Disorder

It is useless to specify the role of the hypothalamus and the reticular formation among others in the control of the sleep-vigilance biological cycle. Moreover, during the interrogation, some patients spontaneously admit to being awakened during the night by phases of "clenching of the jaws, clenched teeth". Therefore, it is not surprising to note that, apart from any hypnogenic pharmacopoeia, an etiological therapy, based on myoresolute principles, can help the patient to recover a restful sleep more in accordance with the requirements of physiology. With respect to nocturnal bruxism, Ware (1988) focuses on a particular form he calls "destructive bruxism": patients complain of severe cranio-cervico-facial pain resulting from overactive extensor muscle hyperactivity. of the motor reflex during sleep-Rapid Eye Movement REM. (4,6)

Prolonged fever

In the book Cranio-mandibular dysfunctions SADAM Francis Hartmann, it has been described "..... some patients suffering from cranio-mandibular dysfunction have been observed to have a disorder of thermal regulation. In general, they were patients referred by the infectious diseases department. " Unexplained FPI prolonged fever is defined as any fever that has lasted two to three weeks and has not been diagnosed in spite of the clinical examination and various additional routine tests. (4)

Deglutition and phonation problems

The relationship between manducation and phonation is notoriously amplified in some patients with cranio-mandibular dysfunction. Indeed, it is not uncommon to receive in consultation patients complaining during the interrogation of various signs such as: difficulty in pronouncing certain sounds, hoarse voice, high dysphagia, lingering impression of angina, impression of gord tight or lumpy, coughing by laryngeal irritation without infection. These signs are sometimes accompanied by supra- and infra-hyoid pain. These patients have generally undergone ORL, sophisticated gastroenterological examinations, neurological pathways, examinations which have proved to be strictly negative. Because of the persistence of these symptoms, some have been referred for psychiatric consultation. The hyoid bone has a great importance in the vocal emission, the control of the position of this bone is the responsibility of the supra- and infra-hyoidian muscles: one can imagine that a dysfunction of these muscles, in the presence of a spasticity manducante or an iatrogenic prosthetic error, may disturb phonation.⁴

Nausea and vomiting

Nausea, also called "high heart" is a subjective sensation, defined as a desire to vomit, thus reaching the cortical level; it can be accompanied by ineffective gastric and parietal contractions. It corresponds to the first phase of a motor sequence, most often reflex, sometimes resulting in vomiting by means of efforts. The necroltrols vomiting are located on the floor of the IV ventricle of the motor nerve center; there is no single center but a series of more or less individualized formations intervening to varying degrees. Located in the reticular formation, the center of vomiting is decomposed into two physiological formations. Area postrema "buser relaxation area" contains a highly developed golgi network. It is part of the A2 group of Noradrenagic centers just like the NTS and the X4 backbone The hypothesis of a resonance of bruxism on a symptom that logic tends to relate most often to digestive pathology. The therapeutic test based on myoresoluble principles seems to confirm the validity of this neurophysiological model

Conclusion

The diagnosis problems due to cranio-mandibular dysfunctions seem a priori complex. It must be admitted that the polymorphic symptomatology of this pathology is surprising to any clinician. However, data from neuroanatomy - more recently from neurophysiology - concerning the manducatory apparatus obviously facilitates the interpretation of the phyopathological phenomenon involved.

REFERENCES

- 1 The American Academy Of Orofacial Pain « Orofacial Pain Guidelines for assesment, diagnosis, and management » fourthedition, 2008
- 2 Nassif NJ.; AL-Saleeh F.; AL-Admawi M. The prevalence and treatmentneeds of symptoms and sign of temporomandibulardisordersamongyoungadult males
- 3 J Oral Rehabil 2003. 30(9): 944-50 The American Academy Of Orofacial Pain : « Orofacial Pain Guidelines for assesment, diagnosis, and management » 4th edition, 20081 Okseon «Management of tempormandibulardisorders and occlusion» ; 6th edition, 2008 3
- 4 Cranio Mandibular dysfunction New medical implication Francis Hartmann, Gérard Cucchi ISBN: 2-287-0039-1
- 5 Bakal DA, Kaganov JA 1977. Muscle contraction and migraine headache: psychophyologiccomparison. Headache 17: 208-215
- 6 Sjöholm TT, Pold OJ, Alihanka JM 1992. Sleepmovemnts in teethgrinders. J CraniomandibDisord oral Facial Pain 6 : 184-191
