“Some thoughts about Temporomandibular Disorders”

by
Jeffrey P Okeson, DMD
Director, Orofacial Pain Program
Chief, Division of Orofacial Pain
Provost's Distinguished Service Professor
University of Kentucky College of Dentistry
Lexington, Kentucky  40536-0297
okeson@uky.edu

The NAS Podcast
June 19, 2019
Some statistics on Temporomandibular Disorders

- During the last 12 months, 1 of 6 patients came to the dental office because of orofacial pain.
- Dental pain was slightly more common musculoskeletal pain.

Some statistics on Temporomandibular Disorders

- During the last 12 months, 1 of 6 patients came to the dental office because of orofacial pain.
- Dental pain was slightly more common musculoskeletal pain.

- 10-20% of the general population have TMD symptoms.
- 7% will seek treatment.

Magnusson et al. J Craino 1991
Kantor, et al, JDR 1992
Kantor et al. JDR 1993
Schiffman et al, JDA, 1990
What is TMD?

“A collective term embracing a number of clinical problems that involve the masticatory musculature, the TMJ and associated structures or both.”*

Temporomandibular Disorders

Musculoskeletal pain disorders
of the masticatory system.
This can be a problem.
Classification of Temporomandibular Disorders

I. Masticatory Muscle Disorders
   1. Protective Co-Contraction
   2. Local Myalgia
   3. Myofascial Pain
   4. Myospasm
   5. Chronic Centrally Mediated Myalgia

II. Temporomandibular Joint Disorders
   1. Derangements of the Condyle-Disc Complex
      a. Disc Displacement with Reduction
      b. Disc Displacement without Reduction
   2. Structural Incompatibilities
      a. Adhesions / Adherences
      b. Deviation in Form
      c. Subluxation
      d. Spontaneous Dislocation

III. Chronic Mandibular Hypomobility

IV. Growth Disorders
   1. Congenital / Developmental Bone Disorders
      a. Agenesis
      b. Hypoplasia
      c. Hyperplasia
      d. Neoplasia
   2. Congenital / Developmental Muscle Disorders

Successful management requires a correct diagnosis.

- Okeson, 2019
General types of Orofacial Pains

- remember -

Temporomandibular Disorder is only one subgroup of Orofacial Pain Disorders.
TMD is a problem for dentists….

…but this is not always a dental problem.
TMD is a problem for dentists…

…but this is not always a dental problem.
In order to successful manage TMD we must understand the etiology.

What causes TM Disorders?
Normal functioning masticatory system → Etiologic Factors → TMD
Evidence Based Dentistry

The asymptomatic individual

Etiologic Factors

Occlusal Factors

Normal functioning masticatory system

TMD
Normal functioning masticatory system

The asymptomatic individual

Etiologic Factors

- Occlusal Factors
- Trauma
- Emotional Stress
- Deep Pain Input
- Parafuction

Adaptability of the individual
- Genetic factors
- Biologic factors
- Hormonal factors
- Psychosocial factors
- Others?

Adaptability

TMD
Normal functioning masticatory system

The asymptomatic individual

Etiologic Factors

- Occlusal Factors
- Trauma
- Emotional Stress
- Deep Pain Input
- Parafunction

Adaptability of the individual

- Genetic factors
- Biologic factors
- Hormonal factors
- Psychosocial factors
- Others?

Adaptability

TMD

How do you treat the TMD symptoms?
Normal functioning masticatory system

The asymptomatic individual

Etiologic Factors
- Occlusal Factors
- Trauma
- Emotional Stress
- Deep Pain Input
- Parafuncion

Adaptability of the individual
- Genetic factors
- Biologic factors
- Hormonal factors
- Psychosocial factors
- Others?

Adaptability

TMD

How do you treat the TMD symptoms?
We need dentists to understand TMD, and be able to differentiate TMD from other orofacial pains.

Gatekeeper

TMD

Treat or Refer?

Non TMD
If it is TMD, the dentist should be prepared to:

- Offer education to the patient about the problem.
- Advise some simple reversible therapies.
- Perhaps, when indicated, provide an occlusal appliance.

Most acute TMDs can be managed by conservative, reversible therapies.
If it is TMD, the dentist should be prepared to:

- Offer education to the patient about the problem
- Advise some simple reversible therapies
- Perhaps, when indicated, provide an occlusal appliance.

More chronic, complex TMD patients may be sent to the orofacial pain specialist.
How well are dentists trained in understand, diagnosing and managing TMD?

Our TMD history in dental education

In 1991: The First Educational Conference to Develop the Curriculum in Temporomandibular Disorders and Orofacial Pain

Recommendations were made to AADS…no changes were made.

How well are dentists trained in understand, diagnosing and managing TMD?

Our TMD history in dental education

In 1992: The Second Educational Conference to Develop the Curriculum in Temporomandibular Disorders and Orofacial Pain

Recommendations were made to AADS…no changes were made.

How well are dentists trained in understand, diagnosing and managing TMD?

Our TMD history in dental education

In 2000: The Third Educational Conference to Develop the Curriculum in Temporomandibular Disorders and Orofacial Pain

Recommendations were made to ADEA and on to CODA… …no changes were made.


Attanasio R: The study of temporomandibular disorders and orofacial pain from the perspective of the predoctoral dental curriculum. J. Orofac Pain 16(3): 176-80, 2002
How well are dentists trained in understand, diagnosing and managing TMD?

Our TMD history in dental education

2007: A survey of American and Canadian Dental School

“Predoctoral teaching of TMD has progressed some, however some schools do not address these topics adequately, while others teach outdated concepts.”

How well are dentists trained in understand, diagnosing and managing TMD?

Our TMD history in dental education

2007: A survey of American and Canadian Dental School

“..standards are needed to ensure that all predoctoral dental students learn about the diagnosis and treatment of nondental orofacial pain problems.”

TMD is a problem for dentists….

…but this is not always a dental problem.
Conclusions
- Suggestions to the Committee -

• Encourage the ADEA and CODA to require TMD be included in all dental school curriculum.
• Promote interactions between dentists and physicians so as to enhance patient experiences.
• Encourage insurance companies to improve reimbursement for the management of TMD.
Thank you for the opportunity to contribute to this podcast

Jeff Okeson, DMD