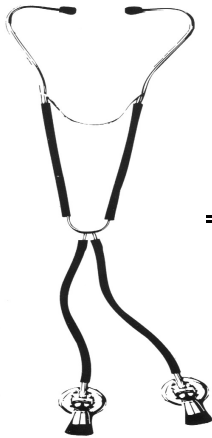


Maxilla to Mandible

Fall 2008



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General Dentistry practice limited to

Temporomandibular Disorders, Orofacial Pain, Oral Reconstruction

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- Condylar Injury: Magnetic Resonance Imaging Findings of Temporomandibular Joint Soft Tissue Changes
- Occlusal Risk Factors for Temporomandibular Disorders

Announcement

It is my pleasure to introduce Dr. Judy Cope. Judy has joined our practice in treating Temporomandibular Disorders and Orofacial Pain. We will be utilizing a team approach. Judy has been involved with treating TMD for seven years, and her insight and training in neuromuscular dentistry will add another dimension to the treatment of your patients.



I am pleased to be joining Dr. Wexler in his practice treating Temporomandibular Disorders and Orofacial Pain. Together, we will provide comprehensive treatment for the patients that you kindly refer to our practice. Please see the announcement with this newsletter.



I am looking forward to meeting and working with all practitioners to achieve optimal care for our patients.

Association of Tightly Locked Occlusion with Temporomandibular Disorders

Tightly locked occlusion (TLO) is a set of secondary changes in occlusion following tooth loss. TLO is defined as the occluding contact that delivers angled occlusal force on the drifted adjacent and/or antagonists of the lost posterior tooth/teeth. In this paradigm, the position of the lost tooth as well as the number of teeth lost is important.

The present study was designed to investigate the association between TLO and TMD. The first group was the TMD group and included subjects who presented with posterior tooth loss for more than 6 months and subjects who had posterior tooth loss and were seeking restoration of the lost teeth. The second TMD-free group had asymptomatic posterior tooth loss.

Diagnostic casts and a lateral oblique transcranial projection and lateral tomogram of bilateral TMJs were done for each subject. The casts were analyzed, and any occlusal contacts between the drifted or tilted neighboring teeth and the supra erupted or tipped original antagonist of the lost posterior tooth were classified as TLO.

TLO and gender were considered in the analysis, and both significantly affected the incidence of TMD; however, radiographic joint asymmetry or osseous changes in this study were not correlated with TMD as diagnosed by clinical signs and symptoms. Age and number of teeth lost were also not significant factors.

TLO often occurs in subjects with 1 or several posterior teeth lost without restoration. TLO was

Dr. Wexler has 30 years experience in the field of jaw treatment. He is a Diplomate, American Board of Orofacial Pain, member of the American Academy of Craniofacial Pain, American Academy of Orofacial Pain, American Headache Society, and the American Academy of Dental Sleep Medicine. He is a Fellow of Academy of General Dentistry, member of the Canadian and Ontario Dental Associations and the Ottawa Dental Society. His practice is limited to treatment of temporomandibular disorders and orofacial pain.

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associated in this study with the occurrence of some signs and symptoms of TMD, and further research is needed to determine whether treatment of TLO can result in a reduction of TMD signs and symptoms.

J Oral Rehabil 34: 169-173, 2007.

Condylar Injury: Magnetic Resonance Imaging Findings of Temporomandibular Joint Soft Tissue Changes

TMJ complications frequently develop following condylar trauma. These include malocclusion, limitation of function, disc adhesion and perforation, disc derangement, osteoarthritis, chronic pain, mandibular growth alterations and ankylosis. Soft tissue damage induced by such injuries in and around the intracapsular soft tissue (disc, joint capsule and retrodiscal tissues) is less well characterized.

The current study was initiated to determine whether MRI findings of disc displacement, capsular tear, and haemarthrosis might be linked to degree of condylar injury.

Nine females and 10 males with a mean age of 42 years were enrolled in the study. All patients presented with a uni- or bi-lateral condylar fracture, or a condylar contusion with a uni- or bilateral diagnosis of TMJ sprain/strain. Study data was taken within 5 days of the injury. A diagnosis of condylar fracture type was first made by CT.

To test whether the degree of injury was related to the soft tissue damage, each subject underwent clinical, CT and MRI examination. Bilateral sagittal and coronal MRI were obtained immediately after injury and were used to determine the presence or absence of disc displacement, haemarthrosis and capsular tear.

There was a significant relationship between the degree of condylar injury and the MRI findings of capsular tear (p=0.000), haemarthrosis (p=0.000), and between the MRI diagnoses of capsular tear and haemarthrosis (p=0.000). When the degree of condylar injury was graded according to Spiessel and Schroll, there was good diagnostic agreement between the presence of grade III condylar injury and the MRI diagnoses of capsular tear and haemarthrosis.

The results of this study suggest that the degree of condylar injury is related to MRI findings of capsular tear and haemarthrosis. The use of MRI to supplement a diagnosis of a grade III condylar injury is warranted.

Int J Oral Maxillofac Surg 36: 214-218, 2007

Occlusal Risk Factors for Temporomandibular Disorders

The etiology of TMD is unknown; however, its origin is most likely multifactorial. Some studies have shown that depression and somatization play a role in chronic pain, including TMD. Other studies suggest occlusal factors as risk indicators for the development of TMD.

The purpose of this study was to determine the role of occlusal variables as risk indicators for the development of TMDs. These variables include: overbite; overjet; number of anterior and posterior teeth; bilateral canine guidance on lateral and protrusive movements; anterior centric slide; and Angle Classes I, II, and III malocclusion.

Seventy-two TMD patients with myofascial pain, with or without limited opening and arthralgia were included in this study. In addition, 30 age- and gender-matched pain-free concurrent controls were included. The association between the significant occlusal variables and TMD was calculated. Angle Class II malocclusion and the absence of bilateral canine guidance on lateral excursion were statistically more common in TMD patients than in controls.

Spontaneous pain as well as pain on palpation were also statistically worse in TMD patients compared to controls. Absence of bilateral canine guidance on lateral excursion and particularly Angle Class II malocclusion were considered important risk indicators for the development of TMD.

Angle Orthod 77: 471-477, 2007.

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