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- 5 Splint therapy seemed to reduce pain in significant numbers following fractured angle of mandibles.
- The average of maximum mouth opening increase after arthrocentesis was 9.10 mm, and patients with disc displacement without reduction with locking (closed lock) showed most recovery in maximum mouth opening and it was statistically significant. The average pain relief of patients after arthrocentesis was 3.03 in the VAS scale, and patients using anterior repositioning splint (ARS) preoperatively showed the most pain relief.

## 10

Our findings could not associate any severe systemic disease, malnutrition, or systemic inflammation with the TMD. Results from our study suggest that serum analyses should neither be used as a biomarker of TMD nor a diagnostic tool for an individual subject with TMD.

## <u>16</u>

This clinical trial found that application of cervico-mandibular manual therapies in combination with exercise and education resulted in better outcomes than application of exercise/education alone in individuals with tinnitus attributed to TMD.

# <u>19</u>

The cumulative rates for "prosthesis free of minor complications" at 5- and 10-years were 60.5% (95% CI: 47.2-71.3%) and 8.9% (95% CI: 2.9-18.0%), respectively. The cumulative rates for "prosthesis free of major technical complications" at 5- and 10-years were 85.5% (95% CI: 73.0-92.5%) and 30.1% (95% CI: 12.0-50.6%), respectively. Presence of bruxism and absence of a night guard were associated with increased risk for chipping of the prosthetic material of the IFCDPs.

### <u>24</u>

The TMD prevalence in patients seeking orthodontic treatment was high, with many individuals presenting painful TMD signs/symptoms. Female and older patients appear to have a greater occurrence of TMD. Although no strong association between TMD and malocclusion was established, several occlusal traits were implicated.

#### 25

Breastfeeding for less than 4 months increases the risk of posterior cross bite. However, breastfeeding duration is not linked to other malocclusion traits nor is it linked to the orthodontic treatment need of nine-year-old children.

#### 46

As PEEK (polyetheretherketone) showed significantly more favourable results, PEEK splints should be considered as a new therapeutic option for occlusal splint.

# <u>51</u>

The meta-regression analysis showed that patients with pre-existing signs and symptoms of TMD do not experience significant exacerbation of symptoms using the MAD. The presence of TMD does not appear to be routine contraindication for the use of MAD used for the management of OSA.

# <u>53</u>

Intra-articular TMJ BMNc injection improved clinical outcomes in TMD treatment. The Results of this first human-model study are promising but further studies are needed to determine whether BMNc can represent the best treatment for TMDs.

# <u>57</u>

General dentists could benefit from specific educational programs enhancing TMD management skills.

# <u>62</u>

The mandibular advancement device is an effective treatment, improving the Apnea Hypopnea Index and the symptoms of patients with OSA in 92% of the

subjects from all the investigated studies. The future may include the integration of a biosensor for the diagnosis and follow-up.

### <u>73</u>

It is clear that orthodontic residencies in the U.S. need to improve methods of teaching TMD concepts. Although most orthodontists feel comfortable diagnosing TMD patients, less than half feel comfortable treating those patients and the difference in responses with the TMD expert group was significant in 71% of the questions.

### <u>76</u>

Diffusion imaging serves both an important basic science purpose in identifying pain mechanisms, but is also a clinically powerful tool that can be used to improve treatment outcomes.

## <u>82</u>

The 3 techniques resulted in significant improvement in MMO and all VAS parameters. The one-way analysis of variance (ANOVA) revealed significant differences (p < 0.05) in the variables between the 3 groups. The increase in MMO in the PRP and HA groups was significantly greater than in the case of the control group, whereas no significant difference was found between the PRP and HA groups. The pain intensity and masticatory efficiency results were significantly better in the PRP group than in the HA group or the control group; at the same time, no significant differences were noted between the HA group and the control group. Conclusions: Despite the fact that patients benefited from all of the 3 techniques, arthrocentesis plus PRP appeared to be superior to arthrocentesis plus HA or arthrocentesis alone. (Arthrocentesis only (control); arthrocentesis plus hyaluronic acid (HA); and arthrocentesis plus platelet-rich plasma (PRP).

# <u>83</u>

Little evidence found for human cause-effect relationships.

An excellent review of the various treatment modalities and lamentation of the lack of coordinated approach to treatment.

#### 93

Preoperative bilateral masticatory tenderness might be a useful predictive factor suggesting the consideration of revised non-invasive therapy before surgery.

### 98

Unilateral arthrocentesis on more symptomatic TMJ and subsequent stabilisation splint therapy was highly successful for pain and achievement of normal range of mandibular movements in patients with both ADDWoR and bony change.

#### 100

We find that the proportion of TMJ complaints increases from 19% in the any tinnitus group to 36% in the severe group (as measured with the THI), strongly indicating that TMJ problems largely contribute to tinnitus severity. Many of the features analyzed in the present study showed a marked difference between tinnitus subjects with or without TMJcomplaints, similar to Vielsmeier et al. (2012).

# 121

An occlusal splint appears to be effective in reducing symptoms related to temporomandibular disorder and bruxism. However, high quality evidence is severely lacking to support its use. Therefore, as it is a non-invasive and reversible therapy, its use in patients with bruxism is proposed.

# <u>125</u>

Within the limitations of this pilot study, a reduction in both discriminative (primary and secondary somatosensory cortex) and affective (anterior insula) areas for pain processing suggest that altered pain anticipation is critical for the therapeutic effects of mandibular splint therapy after TMD.

#### CLINICAL RELEVANCE:

A 3-month mandibular splint therapy moderately decreases pain and anticipatory anterior insular activation.

The results showed that the maximum stress in the jaw bone of patients was 4.4 times the maximum stress in control subjects. After using the splint, the maximum stress decreased by 71.0% (Table 2). However, based on the results, the maximum stress in patients after using the splint did not return exactly to the range of maximum stress in control subjects and there was a difference of 26.9% between the values of maximum stress in control subjects and patients after splint treatment.

The results showed that the occlusal splint therapy was effective in reducing stress and deformation, especially in the head of mandible. It should be noted that following the occlusal splint therapy, the maximum deformation approached almost 2.6 times the maximum stress to the respective value in control subjects. Thus, the effectiveness of splint was higher in reducing deformation than stress. In fact, the design of the occlusal splint therapy is not based on the prevention of bruxism, but the results of this study show that the occlusal splint can help treat this disease by reducing stress and correcting deformations and deviations, especially in the head of mandible, and eventually reducing the additional support reaction due to bruxism in TMJ.

#### <u>182</u>

CRANIO - Deprogramming splint therapy and occlusal equilibration benefitted patients with a reduction in clinical symptoms, and minor changes in condylar position were observed.

## <u>197</u>

CRANIO- The stabilization splint is effective for functional recovery of the masticatory muscles, possibly by eliminating the CR-MI discrepancy and establishing anterior/lateral guidance.

## <u>269</u>

The use of NTIS is associated with reduction in the masseter and temporalis muscles' activity. The NTIS is an effective therapeutic approach for patients having TMDs of muscular origin.

Patients with chronic TMD showed reduced tongue strength and worse masticatory and swallowing functions and these aspects were interrelated.

#### <u>285</u>

Occlusal splints might not be necessary for patients treated with botulinum toxin injections.

### <u>298</u>

The search resulted in 4967 individual studies. 18 studies met the inclusion criteria and were re-evaluated. The selected studies were in favor of a self-care or an occlusal splint treatment of myalgia.

#### 315

Bruxoff is a simple screening device that can be safely used to evaluate masseter muscle activity during sleep.

## **329**

JADA - Psychosocial measures are important predictors of onset but do not add meaningfully to the predictive capacity of clinical measures.

# <u>331</u>

Delphi Study - there is an international consensus among TMD experts that jaw exercises are an effective treatment and can be recommended to patients with TMD pain and disturbed jaw function.

## 332

Infiltrations with BTX-A are a safe and effective treatment for patients with bruxism, so its use is justified in daily clinical practice, especially in patients diagnosed with severe bruxism.

# <u>560</u>

Platelet-Rich Plasma Intramuscular Injections - Antinociceptive Therapy in Myofascial Pain within Masseter Muscles in Temporomandibular Disorders Patients: A Pilot Study.

A Chondrocyte apoptosis in rat mandibular condyles induced by dental occlusion due to mitochondrial damage caused by nitric oxide.

#### 577

An effectiveness of dry needling on the local pressure pain threshold in patients with masticatory myofascial pain. Systematic review and preliminary clinical trial.

#### <u>588</u>

This systematic review found a higher prevalence of tinnitus in patients with TMD compared with the general population. This supports the comorbidity between TMD and tinnitus; however, all but one of the included primary studies on treatment of TMD lacked control groups, which means that future research should target the pathophysiological association.

#### 610

Treatment of Temporomandibular Dysfunction with Hypertonic Dextrose Injection (Prolotherapy): A Randomized Controlled Trial with Long-term Partial Crossover.

#### <u>616</u>

Prevalence of especially pain-related TMD diagnoses was higher in Group 2 compared to Group 1, thus indicating a possible beneficial effect of this treatment for TMD.

## <u>666</u>

Despite the implemented intervention aimed, the indicated under treatment of patients with TMD remains. Future studies are still needed to gain a deeper understanding of the clinical decision-making process for TMD patients in general practice dentistry.

## 684

Study involving 28 patients compared results of 2 surgical techniques to reconstruct TMJ.

## **704**

Study determines that patient perception of occlusal discrepancies is not reliable. Small study.

### <u>751</u>

Study of use of anterior repositioning appliance in juveniles with anteriorly displaced discs.

## **760**

Compared 2 treatment modalities for pain relief and emotional symptoms. Weird project interesting only because of mention of Low power laser usage.

### 849

Abstract is poorly written, but the article promises some good info.