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CHURCHILL LIVINGSTONE 

O.661 TMJ disorders in children with cleft lip and palate

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Aims: The aim of this study was to investigate the prevalence of temporomandibular disorders in children and adolescents with cleft lip or cleft lip and palate.

Methods: A total of 160 patients with cleft lip and palate were examined clinically: most were subject to and X-ray, Electronic Axio-graphy and MRI analysis of TMJ. Dynamic status of TMJ was stated by criteria: mandibular movement disorders, mandible deviation, pulse noise in TMJ, TMJ pain while palpating. On X-Ray articular head and articular tubercle positional relationship while maximum mouth opening was examined.

Results: Clinical manifestation frequency of TMJ disorders in children till 4 is 26% and it rises up to 89% in youth. Statistically there is no significant difference in symptoms of TMJ disorder frequency depending on cleft type.

Conclusions: There is a high risk of TMJ disorders in patients with cleft lip and palate because of anatomical malformations. Therefore clinical examination of TMJ in children with cleft lip and palate may help prevent TMJ disorders in adult age.

the resolute tool for severe inflammatory-degenerative disorders and ankylosis. The present work aims to provide a critical appraisal of the literature on temporomandibular joint total replacement systems.

Methods: An electronic Medline search was performed to identify all the relevant English-language, peer-reviewed articles published during the years 1990–2006, on the basis of their relevancy with the argument of total TMJ replacement.

Results: Seven out of the twenty-eight references included in the review were review articles, seventeen were clinical trials or case series, and four were single-patient case reports. Currently available literature data suggest that outcomes of surgery were encouraging for all the three total prosthetic systems for which follow up data on a consistent sample of patients exist. A poor homogeneity between studies in patients' selection and indications for the intervention has to be pointed out.

Conclusions: A better integration between the clinical and research settings is needed to achieve a standardized definition of the rationale and indications for a total temporomandibular joint replacement. Findings from the available studies are promising, and need to be confirmed by multicenter trials taking into account the interoperator variability.

O.664 TMJ single puncture arthroscopic surgery with a Ho-YAG laser

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Objectives: This study aimed to analyze the effects of TMJ single puncture arthroscopic lysis and lavage with a Ho-YAG laser in patients with internal derangement or osteoarthritis after conservative treatments and arthrocentesis were unsuccessful.

Method: Surgery was performed in 40 patients with unilateral disk displacement and/or osteoarthritis (Wilkes stage 3: 10 cases, stage 4: 14, stage 5: 16). Postoperative mouth-opening exercises were conducted. Pre- and postoperative findings on maximal mouth opening and visual analog scales (0–100) regarding pain with mandibular motion and pain on chewing were compared before and after the surgery. All cases have been followed for one year after the operation.

Results: Intra-capsular fibrous adhesions were arthroscopically found and cut with a Ho-YAG laser in all cases. The average maximal mouth opening increased from 30 mm presurgically to 40 mm at one month after surgery. The preoperative average visual analog scales regarding pain with mandibular motion and pain on chewing were 47 and 50, respectively. All scale values decreased to under 33 (success level) at two months after surgery. The overall success rates reached 95% at three months after operation. These favorable results were maintained for one year. Stage 5 showed greater improvement than did stages 4 and 3. No case showed any complications.

Conclusion: TMJ single puncture arthroscopic lysis and lavage with a Ho-YAG laser is minimally invasive and effective for use after conservative treatments and arthrocentesis have proven unsuccessful.

O.665 Use of plates and screws in fixation of condylar fractures

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Objectives: Mandibular condyle fractures are very common fractures but the treatment is still controversial in particular in adults unlike the non surgical approaches in children for which there is a great consensus. Many techniques of reduction and many devices were suggested. In general, open reduction and osteosynthesis is preferred for treating displaced and dislocated fractures. We

O.662 TMJ laser arthroscopy for posterior disc displacement

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Objectives: Posterior disc displacement is a very uncommon temporomandibular joint (TMJ) disorder and it is defined as disc tissue located posterior to the condyle, between the posterior surface of the condyle and the postglenoid tubercle. The most common symptoms are clicking, TMJ pain, TMJ luxation and open lock. A definitive diagnosis requires magnetic resonance imaging (MRI). There is no consensus concerning treatment. The Authors present a case of posterior disc displacement treated by TMJ laser arthroscopy.

Methods: A male patient, 45 year old, affected by posterior disc displacement of the right TMJ was referred to our Department of Maxillofacial Surgery. Conservative treatment with intraoral appliance and arthrocentesis was made unsuccessfully. The patient was treated with TMJ arthroscopy: the diagnosis of posterior disc displacement was arthroscopically confirmed; a synovitis was found in the anterior and posterior recess. A laser (Ho:YAG laser) release was performed on the posterior attachment of the disc in the posterior retrodiscal tissue and a scarification of the synovia was performed in the anterior recess. The patients were evaluated by clinical examination at 1 week, 1, 3, 6 and 12 months after the surgery.

Results: At the follow-up clinical examinations the patient showed a good TMJ function with the release of all symptoms.

Conclusions: This new arthroscopic laser technique, with posterior release, recontouring of the disc and anterior scarification, was an effective method for improvement joint function and could be proposed for surgical treatment of this uncommon internal derangement of the TMJ.

O.663 TMJ prosthesis: a critical appraisal of literature and case

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Objectives: Total temporomandibular joint (TMJ) replacement systems have been introduced in the field of TMJ surgery as