



ABSTRACTS FROM RECENT LITERATURE

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Differences in Peri-Implant Microflora Between Fully and Partially Edentulous Patients: A Systematic Review

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Background: The current evidence suggests that the oral microflora differs between individuals who are fully edentulous (FES) and those who are partially edentulous (PES). It is unknown whether this leads to differences in peri-implant microflora when implants are installed. The aim of the study is to compare the submucosal peri-implant microflora between FES and PES. **Methods:** A systematic review was conducted. The MEDLINE, Embase, and Cochrane databases were searched for publications up to September 1, 2012. To reduce methodologic variations, only studies reporting in the same article about the submucosal peri-implant microflora of FES and PES were selected. **Results:** Eleven publications describing 10 studies were selected. Because of numerous differences among the selected studies, no meta-analysis could be performed. Six of 10 studies showed a significant difference in the composition of the submucosal peri-implant microflora in healthy and peri-implant mucositis conditions between FES and PES, with the latter showing a potentially more pathogenic composition. However, microbiologic results were not unanimous among the studies. **Conclusions:** In healthy and peri-implant mucositis conditions, PES harbor a potentially more pathogenic peri-implant microflora than FES. The current data are insufficient for a clear conclusion regarding peri-implantitis cases. Overall, because of the lack of a meta-analysis, the variability in microbiologic outcomes and the limited number of studies available, the current evidence seems not to be robust.

Keywords: Dental implants, jaw, edentulous, microbiology, mouth, edentulous, peri implantitis, periodontal diseases

Journal of Oral and Maxillofacial Surgery Volume 71, Issue 12 , Pages 2137-2150, December 2013

Craniofacial Approaches and Reconstruction in Skull Base Surgery: Techniques for the Oral and Maxillofacial Surgeon

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Skull base surgery (SBS) is considered the standard of care in treating benign and malignant lesions of the cranial base. SBS is a multidisciplinary team approach used to treat these complex lesions that may have intracranial extension. SBS can be broken down into 3 steps. Transfacial access is performed, followed by resection with sound oncologic principles, and then reconstruction of the cranial base and facial structures. Functional and esthetic concerns must be addressed by the surgeons. Oral and maxillofacial surgeons frequently perform elective facial osteotomies and treat victims of cranial base trauma. These same principles can be applied to SBS as a part of the skull base team.



ABSTRACTS FROM RECENT LITERATURE

Journal of Oral and Maxillofacial Surgery Vol. 71, Issue 11, Pages 1915-1922

Repositioning of a Traumatically Displaced Globe With Maxillary Antrostomy: Review of the Literature and Treatment Recommendations

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Complete dislocation of the globe, inferiorly into the maxillary sinus, medially into the ethmoid sinus, or superiorly into the anterior cranial fossa, can occur with significant blunt facial trauma. The degree of injury to the globe, its adnexal structures, and the optic nerve is dependent on the extent of the dislocation. Complete traumatic subluxation of the globe into the maxillary sinus is associated with severe injury to the periocular structures and represents a challenging and unique reconstructive process rarely encountered in published studies. The present case report represents only the 15th reported case of complete orbital prolapse into the maxillary sinus. Controversy exists regarding the definitive treatment of traumatic globe dislocations, the risk of sympathetic ophthalmia (SO), the sequela of postenucleation socket syndrome, and prophylactic steroid treatment to decrease the incidence of SO and traumatic optic neuropathy.

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Effect of digitizing techniques on the fit of implant-retained crowns with different antirotational abutment feature

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Statement of problem: The development of computer-aided design/computer-aided manufacturing technology has enabled the fabrication of implant-retained restorations. However, information on the marginal and axial accuracy of restorations fabricated by different digitizing techniques with different antirotational abutment features is not sufficient. **Purpose:** The purpose of this in vitro study was to evaluate the influence of digitizing techniques on the fit of implant-retained crowns with 2 antirotational features. **Material and Methods:** An experimental working cast housing a tissue-level dental implant was created. Resin-retained abutments with different antirotational features were connected to the implant. Optical impressions of 2 abutment types were obtained separately with 1 chairside and 2 laboratory approaches. Alumina silicate restorations were milled from chairside optical impressions, and ceramic oxide cores were milled from laboratory optical impressions. Restoration fit was evaluated from axial sections of restorations with silicone materials representing the marginal and axial gaps. Axial and marginal fits were measured on digital photographs of the sectioned specimens with a computer program. Two-way ANOVA was used to compare differences between abutments with 2 different antirotational features and digitizing techniques separately for the marginal and axial fits of single implant-retained crowns. A post hoc least significant difference test was used to compare digitizing techniques ($\alpha=.05$). **Results:** Significant differences in the marginal fit of single-implant-retained crowns were found among digitizing techniques ($P=.011$) and between antirotational features ($P<.001$). No significant difference in the axial fit of single-implant-retained crowns was found among digitizing techniques ($P=.905$) or between antirotational features ($P=.075$).

Conclusions: Within the limitations of this in vitro study, the marginal fit of single-implant-retained crowns was affected by antirotational abutment features. Furthermore, digitizing techniques were found to play an important role in the marginal fit of single-implant-retained restorations.



ABSTRACTS FROM RECENT LITERATURE

Journal of Endodontics, Volume 40, Issue 4, Supplement, Page S1, April 2014

Proceedings of the Pulp Biology and Regeneration Group Symposium 2013: Pulp Regeneration—Translational Opportunities

Kerstin M. Galler, Stéphane R.J. Simon, DOI: <http://dx.doi.org/10.1016/j.joen.2014.03.003>

From March 24–26, 2013, the Pulp Biology and Regeneration Group (PBRG) of the International Association for Dental Research (IADR) held a Symposium in San Francisco, which took place directly after the IADR General Session. PBRG is an active group within the IADR, and satellite symposia take place every 3–5 years. The 2013 symposium was entitled “Pulp Regeneration—Translational Opportunities,” which reflects on the advances that have been made in both research and clinics regarding approaches to dental pulp regeneration.

Operative Dentistry: January/February 2014, Vol. 39, No. 1, pp. E31-E44 (doi:<http://dx.doi.org/10.2341/13-070-LIT>)

The Role of Resin Cement on Bond Strength of Glass-fiber Posts Luted Into Root Canals: A Systematic Review and Meta-analysis of *In Vitro* Studies

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Clinical Relevance: There is little clinical evidence on the performance of glass-fiber posts to guide clinical decisions when selecting the cementation strategy. This meta-analysis of *in vitro* studies suggests that the use of self-adhesive resin cement could improve the retention of glass-fiber posts. **Summary:** Because there are several ways to cement glass-fiber posts (GFPs) into root canals, there is no consensus on the best strategy to achieve high bond strengths. A systematic review was conducted to determine if there is difference in bond strength to dentin between regular and self-adhesive resin cements and to verify the influence of several variables on the retention of GFPs. This report followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement. *In vitro* studies that investigated the bond strength of GFPs luted with self-adhesive and regular resin cements were selected. Searches were carried out in the PubMed and Scopus databases. No publication year or language limit was used, and the last search was done in October 2012. A global comparison was performed between self-adhesive and regular resin cements. Two subgroup analyses were performed: 1) Self-adhesive × Regular resin cement + Etch-and-rinse adhesive and 2) Self-adhesive × Regular resin cement + Self-etch adhesive. The analyses were carried out using fixed-effect and random-effects models. The results showed heterogeneity in all comparisons, and higher bond strength to dentin was identified for self-adhesive cements. Although the articles included in this meta-analysis showed high heterogeneity and high risk of bias, the *in vitro* literature seems to suggest that use of self-adhesive resin cement could improve the retention of GFPs into root canals.