

ORAL SURGERY CARE



Fall 2016

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Happy Fall!

Enjoy our quarterly newsletter, reviewing some of the latest literature in oral surgery and implant dentistry.

Enclosed also is an invitation to a complementary evening presentation on December 1 by author and psychologist Traci Mann, Ph.D.. Dr. Mann runs an eating lab at the University of Minnesota, where she has produced a great deal of evidence-based data that dispels many commonly-held beliefs about eating, dieting, nutrition and exercise. This presentation is open to dentists and staff members along with their family members, as well as any interested neighbors or friends. We just ask for a head count of who is coming. We hope to see you there.



Oral Surgery Care

Regards,

Dr. Brent L. Florine

P.S.: Space is still available for our CPR recertification classes on November 10 and 15.

Survival of Dental Implants Placed in Grafted and Nongrafted Bone

Tran DT, Gay IC, et al.

Int J Oral Maxillofac Implants. 2016 Mar-Apr;31(2):310-7

The purpose of this study was to compare dental implant survival rates when placed in native bone and grafted sites. Additionally, risk factors associated with dental implant loss were identified. This study was based on the hypothesis that bone grafting has no effect on implant survival rates. A retrospective chart review was conducted for patients receiving dental implants at the University of Texas, School of Dentistry from 1985 to 2012. Exclusion criteria included patients with genetic diseases, radiation and chemotherapy, or an age less than 18 years. To avoid misclassification bias, implants were excluded if bone grafts were only done at the same time of placement. Data on age, sex, tobacco use, diabetes, osteoporosis, anatomical location of the implant,

implant length and width, bone graft, and professional maintenance were collected for analysis.

A total of 1,222 patients with 2,729 implants were included. The cumulative survival rates at 5 and 10 years were 92% and 87% for implants placed in native bone and 90% and 79% for implants placed in grafted bone, respectively. *Appropriate statistical analysis indicated no significant difference in survival between the two groups; having maintenance therapy after implant placement reduced the failure rate by 80%, and using tobacco increased the failure rate by 2.6-fold. There was no difference in the dental implant survival rate when implants were placed in native bone or bone-grafted sites. Smoking and lack of professional maintenance were significantly related to increased implant loss.*

Does a Higher Glycemic Level Lead to a Higher Rate of Dental Implant Failure?

Shi Q, Xu J, et al.

J Am Dent Assoc. 2016 Jul 16. 508-514

Due to limited evidence, it is unclear whether diabetes that is not well controlled would lead to a higher rate of dental implant failure. The authors of this study evaluated whether the failure rate for patients with diabetes that was not

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Dr. Brent Florine received his undergrad degree from the University of Minnesota College of Liberal Arts and attended the University of Minnesota School of Dentistry. He received postgraduate



dental and oral and maxillofacial surgery training at Louisiana State University and Charity Hospital in New Orleans, and the University of Minnesota Hospitals and Clinics. He is certified as a Diplomate of the American Board of Oral and Maxillofacial Surgery and has practiced oral surgery in Eagan since 1987.

Glycemic Level...continued

well controlled was higher than the failure rate for patients with well-controlled diabetes. The authors searched PubMed, the Cochrane Library, and ClinicalTrials.gov without limitations for studies whose investigators compared the dental implant failure rates between patients with well-controlled diabetes and diabetes that was not well controlled. The authors pooled the relative risk (RR) values to estimate the relative effect of the glycemic level on dental implant failures. The investigators used a subgroup analysis to identify the association between the implant failure rate and the stage at which the failure occurred.

The authors included 7 studies, including a total of 252 patients and 587 dental implants. The results of the pooled analysis did not indicate a direct association between the glycemic level in patients with diabetes and the dental implant failure rate. The pooled RR in the subgroup of patients who experienced early implant failure was 0.817, whereas in the subgroup of patients who experienced late implant failure, the pooled RR was 0.572. *On the basis of the evidence, the results of this study failed to show a difference in the failure rates for dental implants between patients with well-controlled diabetes and patients with diabetes that was not well controlled. However, considering the limitations associated with this study, the authors determined that more future studies that are well designed and provide adequate controls for confounding factors are required.*

Comparative Analysis of Three Histologic Grading Methods for Squamous Cell Carcinoma of the Lip

Strieder L, Coutinho-Camillo CM, et al.
Oral Dis. 2016 Sep 26 1111-1119

The purpose of this study was to evaluate three histologic grading methods for squamous cell carcinoma (SCC) of the lip, the conventional 3-grade model proposed by the World Health Organization (WHO), tumor budding and depth of invasion (BD) model, and histologic risk assessment (HRA) model, and to correlate them with prognosis. Fifty-three patients with lip SCC were evaluated.

The mean age was 65 years, 69.8% of the participants were men, and 66.0% of the patients had early-stage tumors. Using the BD and conventional 3-grade methods, 52.8% and 64.2% of the cases were graded as low risk, respectively. The HRA model graded 54.7% of the cases as medium risk. In the BD model, the higher histologic grade was associated with worse prognosis. Overall survival at 5 years was 87.8%. Tumor size (T3 + T4) and lymph node

involvement (N+) were associated with reduced overall survival and recurrence-free survival (RFS). *Surgical treatment combined with radiotherapy was associated with lower RFS. High-grade Lip SCC in advanced stages is associated with a poor prognosis. The authors conclude that the BD model is a simple and effective tool for the prognostic evaluation of lip SCC.*

Evaluation of Potential Risk Factors that Contribute to Malignant Transformation of Oral Lichen Planus

Agha-Hosseini F, Sheykhbahaei N, et al.
J Contemp Dent Pract. 2016 Aug 1;17(8):692-701.

Many studies have suggested that a lesion originally diagnosed as oral lichen planus (OLP) has different possibilities of undergoing malignant transformation in time, although these findings remain a controversial issue; for example, some studies reported different values of potential malignancy of OLP. World Health Organization (WHO) classifies OLP as a "potentially malignant disorder" with unspecified malignant transformation risk, and suggests that OLP patients should be closely monitored. Numerous studies have attempted to confirm the malignant transformation potential of OLP.

The Cochrane Controlled Trials Register, Medline and EMBASE databases, PubMed, Google Scholar, Ovid, Up To Date, BMJ Clinical Evidence, MD Consult, and Science Direct were searched for papers published between 1997 and 2015. The medical subject heading search terms were "lichen planus," "oral lichen planus," "erosive oral lichen planus," "dysplasia," "oral precancerous condition," "oral premalignant condition," oral cancer, oral squamous cell carcinoma (OSCC), and atrophic lichen planus. A total of 120 English language abstracts were reviewed, and 50 relevant articles identified. Because of the extensive literature on the association between OLP and SCC, the authors have divided the data into genetic and non-genetic factors for more accurate assessment. In this evidence base, malignant transformation ranges from 0 to 37% with a mean of 4.59%. *The highest rate of malignancy was noted in erythematous and erosive lesions. In this way, follow-up of OLP patients could be carried out more efficiently and appropriately. Oral lichen planus is a premalignant lesion. All types of OLP in any site of oral mucosa must be monitored regularly.*

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