

ORAL SURGERY CARE



Winter 2016

BRENT L. FLORINE, D.D.S.

Diplomate of the American Board of Oral and Maxillofacial Surgery

4151 Knob Drive, Suite 101
Eagan, MN 55122
(651) 688-8592

www.oral surgery care.com
online@oral surgery care.com

Happy Winter!

We are committed to providing the latest information about oral surgery and implant dentistry to you, and hope you enjoy our quarterly newsletter.

The prescription painkiller epidemic is for real and it's here and affecting countless people around us. I invite you to read my article about the opioid epidemic in the upcoming January/February edition of Northwest Dentistry. I would be happy to visit your office for a discussion with you and your staff about opioids and how they are affecting us, our patients, and our loved ones. I will also be hosting a Skype session with Sam Quinones, the author of "Dreamland: The True Story of America's Opiate Epidemic" this winter. Contact me if you are interested in either of these opportunities.



Oral Surgery Care

As always, thank you for trusting us with oral surgery care for your patients. Please call us whenever we can be of any help.

Best Regards,

Brent Florine, DDS

Short Dental Implants (6 mm) Versus Long Dental Implants (11-15 mm) in Combination with Sinus Floor Elevation Procedures

Pohl V, Thoma DS, et al.
J Clin Periodontol. 2017 Jan 12

The purpose of this study was to test whether or not the use of short dental implants (6 mm) results in an implant survival rate similar to that with longer implants (11-15 mm) in combination with sinus grafting. This multi-center study enrolled 101 patients with partial edentulism in the posterior maxilla and a remaining bone height of 5-7 mm. Included patients were randomly assigned to receive short implants (6 mm; GS / group short) or long implants (11-15 mm) simultaneously with sinus grafting (GG / group graft). Six months after implant placement (IP), implants were loaded with single crowns (PR) and patients were re-examined yearly thereafter. Assessed outcomes included: implant survival, marginal bone level changes (MBL), probing pocket depth (PPD), bleeding on probing (BoP) and plaque accumulation (PCR) during 3 years

of loading as well as recording of any adverse effects. In addition to descriptive statistics, statistical analysis has been performed for the two treatment modalities using a non-parametric approach.

In 101 patients, 137 implants were placed. At the 3-year follow-up (FU-3), 94 patients with 129 implants were re-examined. The implant survival rate was 100% in both groups. MBL at FU-3 was 0.45 mm (GG) and 0.44 mm (GS) ($p>.05$). A statistically significant loss of MBL was observed in both GG (-0.43mm) and GS (-0.44mm) from IP to FU-3, and from PR to FU-3 in GG (-0.25mm) but not in GS (-0.1mm). PCR and BoP at FU-3 did not show any difference between the groups but for PPD. *The authors concluded that implants with a length of 6 mm as well as longer implants in combination with a lateral sinus lift may be considered as a treatment option provided a residual ridge height of 5-7 mm in the atrophied posterior maxilla is present.*

Impact of Second Stage Surgery on Bone Remodeling Around New Hybrid Titanium Implants

Traini T, Berardini M, et al.
Implant Dent. 2017 Jan 4

The present prospective study aimed to more precisely identify the time points of bone changes around hybrid titanium implants up to 30 months of follow-up. Twelve hybrid T3 implants (Biomet 3i) were placed in 9 healthy patients

continued on back page

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.

Second Stage Surgery...continued

with the 2-stage surgical approach. Standardized digital Rx were taken at implant insertion (T0); healing-abutment connection after 3.1 ± 0.2 weeks (TX); loading stage after 7.5 ± 0.6 weeks (T1); after 12 months (T2); and after 30 months (T3) of functional loading. The marginal bone loss was digitally measured.

The mean marginal bone loss was 0.76 ± 0.37 mm after 30 months. More than 60% (0.42 ± 0.29 mm) of the bone loss took place at healing-abutment connection (TX-T1). No statistically significant bone loss was found between T1-T2 and T2-T3, after 12 and 30 months, respectively. Approximately 40% of bone loss (0.34 mm) was noted between T1 and T3 ($P < 0.05$), which corresponds to the loading period. The implant-oral environment connection represents a critical step point in crestal bone loss. *The amount of marginal bone loss, measured after 30 months of loading (T1-T3), was much less than that reported in the literature, showing that correct loading has a minor impact on the periimplant bone remodeling as compared to surgical implant reopening.*

The Effects of a Topical Gel Containing Chitosan, 0,2% Chlorhexidine, Allantoin and Despanthenol on the Wound Healing Process Subsequent to Impacted Lower Third Molar Extraction

Madrazo-Jiménez, M Rodríguez-Caballero, et al.
Med Oral Patol Oral Cir Bucal. 2016 Nov 1;21

Despite efforts to prevent postoperative discomfort, there are still many immediate side effects associated with the surgical extraction of impacted lower third molars. Cicatrization is a physiological process through which the loss of integrity of oral mucosa is recovered and damaged tissues are repaired. Bexident Post (ISDIN) is a topical gel that contains chitosan, 0,2% chlorhexidine, allantoin and dexpanthenol. While this gel has many clinical indications, there are no published clinical trials evaluating its use in impacted mandibular third molar surgery. This study was undertaken to clinically evaluate the efficacy of a gel containing chitosan, 0,2% chlorhexidine, allantoin and dexpanthenol on wound healing and reduction of postoperative side effects and complications after extraction of an impacted mandibular third molar.

A split-mouth design study was carried out on a total of 50 bilaterally and symmetrically impacted third molar extractions, which were randomly placed into either a control group (CG=25) or an experimental group (EG=25). Patients were all informed of the purpose of the study and provided written consent. All procedures were carried out by the same dental practitioner, in accordance with standard surgical protocol. A different dental practitioner, unaware of which treatment had been applied, provided follow-up care. The EG applied 10 ml of topical gel composed of chitosan, 0,2% chlorhexidine, allantoin and dexpanthenol to the surgical

wound three times a day for 10 days, patients in the CG did not apply any gel. The groups were homogeneous insofar as potentially confounding variables. No significant findings were found regarding postoperative swelling and pain. Neither of the groups displayed poor healing or infectious complications of the wound during the postoperative period. *In all the recorded follow-ups (Day 7, and Day 14), the wound's aesthetic appearance was better in the EG. Overall treatment tolerance was satisfactory and similar in both groups. The gel composed of chitosan, 0,2% chlorhexidine, allantoin and dexpanthenol did not aid in patients' postoperative comfort; however, improved wound healing was observed.*

Does the Addition of Bone Morphogenetic Protein 2 to Platelet-Rich Fibrin Improve Healing After Treatment for Medication-Related Osteonecrosis of the Jaw?

Park JH, Kim JW, et al.
J Oral Maxillofac Surg. 2016 Dec 11

To investigate the effect of the addition of bone morphogenetic protein 2 (BMP-2) to leukocyte-rich and platelet-rich fibrin (L-PRF) on the treatment of medication-related osteonecrosis of the jaws (MRONJ), this study compared the healing outcome of combined use of BMP-2 and L-PRF with single use of L-PRF. Of 55 patients who were diagnosed with MRONJ, 25 were treated with L-PRF alone and 30 were treated with L-PRF and recombinant human BMP-2. For each patient, surgical sites were evaluated postoperatively at 4 and 16 weeks. Associations between the treatment method and the resolution of MRONJ were analyzed with the adjustment of patient-specific factors that may influence the treatment outcome.

The investigators found that at 4 and 16 weeks postoperatively, patients with MRONJ who were treated with both L-PRF and BMP-2 showed favorable outcomes with complete resolution of the lesions, which was statistically significant compared with that of the therapy using L-PRF alone. Therefore, the additional use of BMP-2 considerably improved MRONJ healing. Among patient-specific factors, the existence of a bacterial colony in the biopsy specimen was a significant factor that negatively affected disease resolution. *The authors concluded that the combined use of BMP-2 and L-PRF leads to the early resolution of MRONJ; thus patients who need to continue antiresorptive therapy may benefit from the combined regimen.*

ORAL SURGERY CARE ► (651) 688-8592



BRENT L. FLORINE, D.D.S.

4151 Knob Drive, Suite 101
Eagan, MN 55122

www.oral surgery care.com
online@oral surgery care.com