Happy New Year!

Please enjoy our monthly newsletter presenting some of the latest developments in oral surgery and implant dentistry. We pride ourselves in being a source of information for you as well as providing oral surgery care for your patients.

The Minnesota State Board of Dentistry allows hour-for-hour credit (elective category) for self-study activities such as this. Simply document the date, amount of time and what was reviewed in your portfolio.

We appreciate the trust you place in us by allowing us to participate in the care of your patients.

Regards,
Dr. Brent L. Florine

P.S. The antibiotic prophylaxis guidelines for prosthetic joints were recently updated. Call if you would like me to give an in-service in your office about the changes.

The mean age of the 113 subjects was 23.2 years. Of the 113 subjects, 79 elected to undergo 3M removal within 6 months of enrollment (removed group) and 34 elected to retain their 3M at 6 months after enrollment (retained group). A significantly greater proportion of the removed group were white (58% vs 35%) and reported having at least "a little trouble" with opening their mouths (38% vs 18%) and taking part in social life (27% vs 6%). The statistical model suggested the odds of electing 3M removal within 6 months of enrollment were greater for those who were white and those who had at least "a little trouble" with interactions in their social life. In subjects with mild pericoronitis symptoms, experiencing problems with oral function and lifestyle, factors not often considered by clinicians, were significantly associated with subjects' decision for early 3M removal.

Bleeding Rate During Oral Surgery of Oral Anticoagulant Therapy Patients with Associated Systemic Pathologic Entities

Cocero N, Mozzati M, et al.

Oral anticoagulant therapy (OAT) patients have international normalized ratio (INR) safety windows for oral surgery, the lower limit of which is determined by the thromboembolic risk, with the upper limit typically 3.0. The

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Effect of Quality of Life Measures on the Decision to Remove Third Molars in Subjects With Mild Pericoronitis Symptoms

Tang DT, Phillips C, et al

The purpose of this study was to assess how quality of life (QoL) measures affect the decision for third molar (3M) removal in patients with mild symptoms of pericoronitis. Healthy subjects, aged 18 to 35 years, with mild symptoms of pericoronitis were enrolled in an institutional review study. The demographic, clinical, and QoL data were collected at enrollment. The subjects voluntarily scheduled surgery for 3M removal. The principal outcome variable was their decision to undergo or not undergo surgery within 6 months of enrollment. The possible predictor variables were the demographic characteristics, dental insurance, and QoL measures.

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Bleeding Rate...continued

authors sought to assess whether these limits will also be true with comorbidities that favor bleeding, such as diabetes, liver disease, and chronic renal failure. The study was designed for 500 consecutive extractions. Patients with an INR greater than 3.0 were switched to heparin and used as controls. The primary outcome was the incidence of bleeding with the need for reoperation, in connection with 3 principal predictors: the INR, reasons for OAT, and comorbidity type. Continuous variables were analyzed using appropriate statistical analysis. The reliability of the INR as a bleeding predictor was assessed using receiver operating characteristic (ROC) curves.

Extractions in patients receiving OAT without comorbidities had a success rate of 99.7% against severe bleeding. Despite equivalent INR values, patients with comorbidities had a significantly lower rate (81.3%). For these patients, the ROC curve procedure indicated lower INR upper limits, 2.8 for mechanical heart prosthesis subjects and 2.3 for all others. Among the comorbidities, diabetes was associated with the greatest frequency of bleeding (31%) compared with liver disease (15%) and kidney failure (11%). Patients with comorbidities should be advised to bring their INR within narrower safety windows (upper limit of 2.5 to 2.8 for mechanical prosthesis and 2.0 to 2.3 otherwise) or be switched to heparin. Alternatively, the authors proposed applying to the socket, a platelet-rich growth factor preparation to foster hemostasis.

Ridge Preservation Using Demineralized Bone Matrix Gel with Recombinant Human Bonemorphogenetic Protein-2 after Tooth Extraction

Kim YJ, Lee JY, et al.

The purpose of the present randomized controlled trial was to determine the safety and efficacy of injectable demineralized bone matrix (DBM) gel combined with recombinant human bone morphogenetic protein-2 (rhBMP-2) on alveolar ridge preservation after tooth extraction. A total of 69 patients were randomly assigned to either a test group or a control group. In the test group, DBM, together with rhBMP-2 (0.05 mg/ml; rhBMP-2/DBM) was transplanted into the extraction sockets. The control group received DBM alone. The safety of rhBMP-2/DBM was evaluated by oral examination, serum chemistry, and hematologic examination. The radiographic changes in alveolar bone height and width were measured using computed tomography scans performed immediately after transplant and again 3 months thereafter.

Healing was uneventful in all subjects, with no anticipated adverse events and no clinically significant changes in the serum chemistry and hematologic findings. No meaningful immune response was found among the study groups. No significant difference was found in the radiographic changes of alveolar bone height and width. This new injectable biomaterial can be used easily and safely in clinical applications.

Buccal Bone Resorption Around Posterior Implants after Surgery

Takuma T, Oishi K, et al.

This prospective study aimed to examine postoperative dimensional changes in the buccal bone and mucosa around single-stage implants placed in the posterior region. The dimensions of peri-implant tissue around screw-type implants placed in the posterior region were examined at surgery (baseline) and 6 months and 1 year after surgery. The lateral contour of the buccal bone and mucosa was horizontally measured at five vertical heights at 1-mm intervals (+1 to -3 mm from the implant platform) using custom-designed instruments. Bone resorption on the proximal side was assessed on radiographs. Mucosal recession was measured on plaster casts of the dentition. Sixty-six implants placed in 30 patients were examined.

All implants were clinically osseointegrated and stable throughout the study period. The buccal bone exhibited horizontal resorption throughout the study period, even at the most apical height measured. Assessed at each height, thicker bone (>2 mm thick) tended to exhibit horizontal resorption during the first 6 months after surgery. However, the bone resorbed horizontally by approximately 0.4 mm during the final 6 months, irrespective of its contour. Vertical resorption of the buccal marginal bone was approximately 1 mm during the period from 6 months to 1 year. The bone-retaining group at the 1-year time point was found to have thicker bone walls at baseline compared with the bone-loss group. The thickness of the buccal mucosa showed little change. There was no obvious correlation between buccal bone resorption and mucosal recession. The buccal bone exhibited both horizontal and vertical resorption over the year after surgery. The initial contour of the bone was significantly associated with bone retention or loss at 1 year. However, mucosal recession was not directly affected by buccal bone resorption.

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