Oral Surgery Care

Brent L. Florine, D.D.S.

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

Fall 2019

Happy Fall!

Please enjoy these reviews of current oral surgery and implant literature.

The first reviewed article describes the efforts of Dr. Harold Tu, director of the University of Minnesota oral surgery residency program, to reduce opioid prescriptions in all departments at the U of M School of Dentistry. By his estimate, opioid prescriptions have been reduced by 80–90% in recent years by using a new, evidence-based oral analgesic prescribing protocol utilizing NSAIDs for first-line analgesia. Opioids can benefit some patients in dentistry, but it is our responsibility to prescribe judiciously and be especially wary of providing opioids to adolescents and young adults. This is the population at the highest risk for future abuse and addiction, which can be triggered by a legitimate prescription providing the first exposure to opioids.

Oral Surgery Care

We really appreciate being part of your patient care team! Please contact me whenever I can be of any help.

Best Regards,

Dr. Brent Florine

Investigation of an Opioid Prescribing Protocol After Third Molar Extraction Procedures

Tompach PC, Tu HK, et al.
J Oral Maxillofac Surg. 2019 Apr;77(4):705-714

The United States is experiencing an epidemic of opioid overdoses and deaths. The relation between prescription opioids and opioid abuse is well documented. Oral and maxillofacial surgeons and other dentists are proportionately among the most prevalent prescribers of opioids. Practitioners are looking for evidence-based ways to decrease excess opioid prescriptions and adequately manage postoperative pain. The authors recently analyzed the impact of a mandated non-opioid prescribing protocol at their institution. Although broad guidelines have been useful for treating postoperative pain, there are no procedure-specific guidelines for managing pain after third molar extraction. The purpose of this study was to determine whether an opioid prescribing protocol was sufficient to decrease opioid prescribing after third molar extractions. This retrospective study compared the use of opioids prescribed for patients undergoing third molar extraction before introducing and after implementing a postoperative opioid prescribing protocol. The inclusion criterion was third molar extraction performed at the Division of Oral and Maxillofacial Surgery at the University of Minnesota during the fourth quarters of 2015 and 2017.

The number of opioid prescriptions decreased and the number of non-opioid analgesics prescribed increased for all procedure codes after implementation of the protocol. Higher Current Dental Terminology (CDT) codes were associated with increased opioid prescriptions, indicating increased surgical difficulty was a rationale for opioid prescriptions. The mean number of opioid tablets per prescription was 15.9 in 2015 and decreased to 11.5 in 2017. No statistical difference was observed for average tablets for various CDT codes. *Data from this study suggest an acute postoperative pain opioid prescribing protocol leads to fewer opioid prescriptions after third molar extraction procedures, less variance in opioid prescribing among practitioners, a decreased number of opioid tablets prescribed per patient, and safe and effective management of acute postoperative pain.*

Effect of a Single Dose of Oral Opioid and Nonopioid Analgesics on Acute Extremity Pain in the Emergency Department

Chang AK, Bijur PE, et al.
JAMA. 2017 Nov 7;318(17):1661-1667

The choice of analgesic to treat acute pain in the emergency department (ED) lacks a clear evidence base. The combination of ibuprofen and acetaminophen (paracetamol) may represent

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.

Single Dose...*continued*

a viable nonopioid alternative. To compare the efficacy of 4 oral analgesics. Randomized clinical trial conducted at 2 urban EDs in the Bronx, New York, that included 416 patients aged 21 to 64 years with moderate to severe acute extremity pain enrolled from July 2015 to August 2016.

Participants (104 per each combination analgesic group) received 400 mg of ibuprofen and 1000 mg of acetaminophen; 5 mg of oxycodone and 325 mg of acetaminophen; 5 mg of hydrocodone and 300 mg of acetaminophen; or 30 mg of codeine and 300 mg of acetaminophen. The primary outcome was the between-group difference in decline in pain 2 hours after ingestion. Pain intensity was assessed using an 11-point numerical rating scale (NRS), in which 0 indicates no pain and 10 indicates the worst possible pain. The predefined minimum clinically important difference was 1.3 on the NRS.

Of 416 patients randomized, 411 were analyzed (mean age, 37, 199 women; 247 Latinos). The baseline mean NRS pain score was 8.7. At 2 hours, the mean NRS pain score decreased by 4.3 in the ibuprofen and acetaminophen group; by 4.4 in the oxycodone and acetaminophen group; by 3.5 in the hydrocodone and acetaminophen group; and by 3.9 in the codeine and acetaminophen group. The largest difference in decline in the NRS pain score from baseline to 2 hours was between the oxycodone and acetaminophen group and the hydrocodone and acetaminophen group which was less than the minimum clinically important difference in NRS pain score of 1.3. Adverse events were not assessed. *For patients presenting to the ED with acute extremity pain, there were no statistically significant or clinically important differences in pain reduction at 2 hours among single-dose treatment with ibuprofen and acetaminophen or with 3 different opioid and acetaminophen combination analgesics.*

Influence of Timing on the Horizontal Stability of Connective Tissue Grafts for Buccal Soft Tissue Augmentation at Single Implants

Poli PP, Maridati PC, et al.
J Oral Maxillofac Surg. 2019 Jun;77(6):1170-1179

The timing for soft tissue augmentation during implant therapy is still debated. Therefore, this study clinically evaluated whether immediate versus delayed soft tissue augmentation procedures had an impact on the stability of peri-implant mucosal thickness (PMT). Patients requiring a single implant posterior to the canines in association with soft tissue augmentation procedures at the buccal aspect of single implants using a connective tissue graft (CTG) were enrolled. Patients were randomly allocated to 2 different timing protocols: simultaneous implant and CTG placement (test group) or implant placement and then CTG placement after 3 months (control group). PMT was measured clinically at the mid-buccal aspect of the implant site by bone sounding with an endodontic K-file using customized acrylic stents. PMT measurements were recorded before and after implant placement and at 1, 2, 3, 4, 6, 9, and 12 months after implant insertion. Statistical tests were used to compare PMT between the test and control groups at each study period and to evaluate changes in PMT over time.

Fourteen implants placed in 14 patients were available for statistical comparison. At 12 months, the difference in PMT between the test and control groups was 0.12 mm. This difference was not statistically significant. A significant increase in PMT was observed from baseline to 12 months after implantation in the test and control groups. *The present study indicated that changes in PMT after CTG placement were not influenced by the timing of soft tissue augmentation and remained stable up to 1 year after implant insertion.*

Does Intensity-modulated Radiation Therapy Lower the Risk of Osteoradionecrosis of the Jaw?

Willaert R, Nevens D, et al.
Int J Oral Maxillofac Surg. 2019 Jun 20

The purpose of this study was to analyze the impact of different radiation techniques on the long-term incidence of osteoradionecrosis in head and neck cancer. Risk factors and the occurrence of osteoradionecrosis were analyzed in a retrospective, comparative, observational study. Medical files and radiological images of 109 patients treated with primary intensity-modulated radiation therapy (IMRT) and 129 patients treated with primary three-dimensional conformal radiotherapy (3D-CRT) were evaluated. Proportional hazards models were used to analyze the effects of the radiation modality and patient characteristics on the necrosis risk.

Twenty-two patients developed osteoradionecrosis (9.2%) during a mean follow-up of 4.3 years. A numerical difference was observed, with more osteoradionecrosis after 3D-CRT (n=18) than after IMRT (n=4). After correction for group differences and confounders, no statistical difference in risk was observed between the two treatment groups. *Statistical analysis showed evidence of a higher osteoradionecrosis risk for patients with a tumor of the oropharynx and for patients with tooth extraction after radiation therapy. Although the incidence of osteoradionecrosis tended to be lower after IMRT, due to the multifactorial etiology it remains a severe problem and cannot be prevented by new radiotherapy techniques. Continuous efforts are necessary to control additional risk factors and avoid osteoradionecrosis.*

ORAL SURGERY CARE ▶(651) 688-8592
BRENT L. FLORINE, D.D.S.
4151 Knob Drive, Suite 101
Eagan, MN 55122
www.oralsurgerycare.com
online@oralsurgerycare.com