

ORAL SURGERY CARE



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Dear Colleagues,

Happy Spring!

There have been too many stops and starts of “planting weather”. Hopefully this time it’s for good.

We are committed to providing our dental colleagues with reviews of current literature, so we can follow emerging trends and ultimately improve our patients’ care.

Our ongoing opioid epidemic continues to affect the lives of many, including our own patients. Opioid prescribing guidelines have been released, and we should be aware of and heed them. The April JADA includes a number of articles related to opioids, including one with thorough review of NSAIDs, acetaminophen, and opioids for post dental treatment pain relief. Effectiveness and acute adverse events are examined. The results, described herein, reinforce the notion that NSAIDs and acetaminophen should be considered before opioids in most instances.



Oral Surgery Care

We can’t predict which patient in our practices is highly susceptible to opioid abuse and addiction. Many addictions are documented as being triggered by the first opioid prescription. If we avoid opioids as the first-line choice for pain control, we are less likely to find out the hard way.

As always, thank you for trusting us with oral surgery care for your patients. We really appreciate it!

Best Regards,

Brent Florine, DDS

Benefits and Harms Associated with Analgesic Medications used in the Management of Acute Dental Pain

Moore PA, Ziegler KM, et al.
J Am Dent Assoc. 2018 Apr;149(4):256-265

Effective pain management is a priority in dental practice. Government and private agencies highlight the need to provide optimal pain relief, balancing potential benefits and harms of both opioid and nonopioid analgesic agents. The purpose of this study is to summarize the available evidence on the benefits and harms of analgesic agents, focusing on preexisting systematic reviews. An overview of systematic reviews was conducted to evaluate the efficacy or reported

adverse events associated with orally administered medication or medication combinations for relief of acute pain. Reviews were inclusive of all age populations but were limited to those that evaluated medication and medication combinations marketed in the United States and had moderate or high methodological quality along with peer review.

Five reviews were found eligible for inclusion. The data identified combinations of ibuprofen and acetaminophen as having the highest association with treatment benefit in adult patients and the highest proportion of adult patients who experienced maximum pain relief. Diflunisal, acetaminophen, and oxycodone were found to have the longest duration of action in adult patients. Medication and medication combinations that included opioids were among those associated most frequently with acute adverse events in both child and adult-aged patient populations. *The best available data suggested that the use of nonsteroidal medications, with or without acetaminophen, offered the most favorable balance between benefits and harms, optimizing efficacy while minimizing acute adverse events.*

Five-Year Survival of Short Single-Tooth Implants (6 mm)

J Dent Res. 2018 Mar 1:2
Naenni N, Sahrman P, et al.

The purpose of this study was to evaluate whether 6-mm dental implants in the posterior segments of either jaw perform equally well in terms of clinical and radiographic outcomes when compared with 10-mm implants after 5 years of
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Five-Year Survival...continued

loading. Patients with single-tooth gaps in the posterior area who were scheduled for implant therapy were randomly assigned to a group receiving either a 6- or 10-mm implant. After a healing period of 10 weeks, implants were loaded with a screw-retained single crown and followed up at yearly intervals. Of 96 patients, 86 could be recalled after 5 years.

The implant survival rates amounted to 91% for the 6-mm group and 100% for the 10-mm group. Median crown-to-implant (C/I) ratios were 1.75 for the 6-mm group and 1.04 for the 10-mm group, whereas the median marginal bone levels measured -0.29 mm (IQR) for the 6-mm group and -0.15 mm (IQR) for the 10-mm group after 5 y. The C/I ratio turned out to be statistically significant, whereas marginal bone levels showed no significant difference between the groups.

The 6-mm implants exhibited significantly lower survival rates than the 10-mm implants over 5 years, whereas there was no difference between upper and lower jaws in terms of survival. Lost implants did not show any sign of marginal bone loss or peri-implant infection previous to loss of osseointegration. High C/I ratio and implant length had no significant effect on marginal bone level changes or technical and biological complications.

Narrow- and Regular-diameter Implants in the Posterior Region of the Jaws to Support Single Crowns

de Souza AB, Sukekava F, et al.
Clin Oral Implants Res. 2018 Jan;29(1):100-107

The objective of this 3-year split-mouth controlled clinical study was to compare narrow-diameter implants (NDIs) to regular-diameter implants (RDIs) in the posterior region of the jaws (premolars and molars) in regards to (i) the marginal bone level (MBL) and (ii) implant and prosthesis survival and success rates. A total of 22 patients were included in the study. Each patient received at least one implant of each diameter (Ø3.3 and Ø4.1 mm), placed either in the maxilla or mandible to support single crowns. A total 44 implants (22 NDIs and 22 RDIs) were placed and included in the study. Twenty-one implants were placed in the premolar, whereas 23 were placed in molar areas. Radiographic evaluations to assess the MBL were performed immediately after implant placement, 1 and 3 years after implant loading. Peri-implant clinical variables including probing pocket depth (PPD) and bleeding on probing (BoP) were obtained after crown delivery, 1 and 3 years after loading. Furthermore, the survival and success rates of the implants and prosthesis were also evaluated.

Twenty patients were able to complete the study. There was no statistically significant difference regarding MBL between groups at implant placement, 1-year and 3-year time intervals. The mean peri-implant bone loss at 3-year follow-up was -0.58 mm and -0.53 mm for NDIs and RDIs, respectively. BoP was

present at 15% and 10% of NDIs and RDIs, respectively, at 3-year follow-up. PPD >5 mm was observed in 5% and 0% of the implants of NDIs and RDIs, respectively, at 3-year follow-up. *At the 3-year examination, the implant success rates were in the NDIs and RDIs sites, respectively, 95% and 100%. The corresponding values for prosthesis success rates were 90% for NDIs and 95% for RDIs. The present study demonstrated that NDIs placed to support single crowns in the posterior region did not differ to RDIs in regards to MBL, implant survival, and success rates.*

Impacted and Transmigrated Mandibular Canines: Analysis of 3D Radiographic Imaging Data

Bertl MH, Frey C, et al.
Clin Oral Investig. 2018 Feb 1

Impacted and transmigrated mandibular canines differ greatly in incidence, etiopathology, associated anomalies, and treatment prospects, when compared to their maxillary counterparts. The aim of this study was to provide a detailed analysis of 3D radiographic imaging data of impacted mandibular canines. In a retrospective cross-sectional study, CT/CBCT data of 88 patients with a total of 94 impacted mandibular canines were analysed. Evaluated parameters included location, morphology, neighbouring structures, associated anomalies, the influence of those factors on mandibular canine transmigration, as well as applied treatment.

Transmigration was found to occur in 40.4% of impacted mandibular canines. Transmigrated canines were located significantly more basally and horizontally angulated. Further, transmigration was significantly associated with a lack of contact to adjacent teeth and the canine's apex not contacting the mandibular cortical bone. The overall incidence of root resorptions of adjacent teeth related to impacted mandibular canines was 7.3% and was more likely, if the canine was lingually impacted. While about half of the non-transmigrated impacted canines were orthodontically aligned, half of the transmigrated canines were surgically removed. Monitoring was the second most applied treatment strategy for both groups, and no canines were autotransplanted. *Root resorption of adjacent teeth and transmigration are commonly occurring phenomena related to impacted mandibular canines. Treatment often entails the surgical removal of the canine-especially in cases of transmigration. The findings emphasise the importance of early diagnosis and CT/CBCT imaging for further diagnostics and future research of impacted mandibular canines.*

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