

ORAL SURGERY CARE



Fall 2017

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Dear Colleagues,

With the coming of fall, so also comes our annual CPR refresher course. Dates are November 9 and 16, from 6-10 PM. If you need details, please email or call. Space is still available on both nights.

The opioid epidemic continues, seemingly unabated. Despite a downward trend in opioid prescribing habits, opioid overdose deaths in Minnesota increased once again in 2016. To gain a mother's perspective on addiction, we are presenting an evening with Martha Wegner, whose son began his struggle with addiction and homelessness while still in high school. See the enclosed flyer if you are interested in this November 30 presentation.



Oral Surgery Care

Thank you again for including us in the care of your patients. We really appreciate it!

Best Regards,

Brent Florine, DDS

Polysubstance Use Among Adolescents in a Low Income, Rural Community: Latent Classes for Middle- and High-School Students

Rose RA, Evans CBR, et al.
J Rural Health. 2017 Sep 18

Rural communities are currently being impacted by a nationwide epidemic of prescription opioid misuse. Rural adolescent substance users may be at substantial risk for later addiction to these and other drugs. This study uses Latent Class Analysis to identify subtypes of polysubstance users among a sample of 7,074 rural adolescents. Separate models were estimated for middle- and high-school youth. The authors identified a 4-class solution for both middle- and high-school students marked by initiation of an increasing number of substances used at greater frequency. These classes included Substance Nonusers, Primarily Alcohol Users, Initiators-Low Frequency Users, and Initiators-Moderate-to-High Lifetime Frequency Users.

About 6%-10% of youth reported using prescription drugs at least once, and in the moderate-to-high frequency class, middle-school youth were more likely to use prescription drugs and inhalants compared to high-school youth in the same class. The 4 classes were associated with race/ethnicity, and in high school with receiving free/reduced price lunch. *In general, younger adolescents have lower overall use rates, but within certain classes identified by this analysis, the observed pattern suggests that younger cohorts are turning to prescription drugs and inhalants.* These findings support the implementation of universal substance use prevention programs, targeted programs for youth experiencing risk factors associated with substance use, and improved rural substance abuse treatment options.

An Assessment of Factors Influencing the Difficulty in Third Molar Surgery

Tenglikar P, Munnangi A, et al.
Ann Maxillofac Surg. 2017 Jan-Jun;7(1):45-50

Surgical removal of a mandibular impacted third molar is one among the most common oral surgical procedures. The objective of this study was to assess and identify risk indicators influencing extended operation time in relation to the surgical removal of mesioangular impacted mandibular third molar, position A, Class I and to evaluate the incidence of postoperative swelling, trismus, and pain. Patients who presented for mandibular

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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.

Third Molar Surgery...continued

third molar removal which were impacted in position A, Class I were enlisted for the study. During 1 year between July 2014 and June 2015, a total of 40 patients were enrolled in the study. The evaluation of patient variables and radiographic variables was done preoperatively. Depending on the duration of time taken for an operation, patients were divided into three groups: Group I, Group II, and Group III. Postoperative complications such as swelling, trismus, and pain were assessed in each of the patients.

Among the six variables examined including patient variables and radiographic variables, maximum interincisal opening, external oblique ridge, and root morphology were found to be dependent factors which influence the operating time. Moreover, other variables such as the crown root width ratio and the number of roots were independent factors. Swelling, trismus, and pain were statistically significant among groups and were directly related to operating time. *The investigators concluded that the outcome of surgical removal of mandibular impacted third molar, position A, Class I depends significantly on relevant patients characteristics and radiographic variables. These should be evaluated preoperatively as they are predetermined factors to avoid postoperative morbidity.*

Smoking May Lead to Marginal Bone Loss around Non-submerged Implant during Bone Healing by Altering Salivary Microbiome

Duan X, Wu T, et al.
J Periodontol. 2017 Aug 28:1-23

This prospective and controlled study elucidates the impact of smoking on salivary microbiome and its further influence on marginal bone loss around the implant during a 3-month bone healing. The saliva samples were collected preoperatively from 20 periodontally healthy patients with single-tooth replacement in posterior mandible jaw: smokers (n=10) and non-smokers (n=10). MiSeq sequencing of 16S rRNA gene amplicons was used to characterize the salivary microbiome. Each subject received an implant surgery after oral clinical assessment and the marginal bone loss around the implant was measured during a 3-month healing period.

In total, 871,389 sequences were compared against the HOMD database for bacterial identification. Microbial signatures of smokers exhibited lower diversity and richness, with a significant decrease in uncultured species. The phyla Gracilibacteria, and Saccharibacteria showed a significantly decrease in smokers. The genera Streptococcus, Lachnoanaerobaculum, Stomatobaculum and Eubacterium were significantly increased in smokers, while Selenomonas, Selenomonas [G-3] and Catonella were significantly

decreased. Specifically, *P. gingivalis* showed significantly more abundant in smokers, which was positively related with the severity of MBL during bone healing. *Smoking shapes the salivary microbiome in states of clinical health, and further may interfere with the marginal bone loss during bone healing by creating high-at-risk-for-harm communities. Understanding of the distinctly divergent oral microbiome in smokers and non-smokers is a base for personalized therapeutics for this high-risk cohort, and also a base for further study on the pathological mechanisms.*

Topical Agents for Oral Cancer Chemoprevention: A Review of the Literature

Chau L, Jabara C, et al.
Oral Oncol. 2017 Apr;67:153-159

The authors in this study reviewed the use of topical chemoprevention agents in patients with oral potentially malignant disorders (PMD). A systematic review of studies on topical chemoprevention agents for oral PMD from 1946 to November 2016 was conducted using the MEDLINE database, Embase, and Cochrane Library. Data were extracted and analyzed from selected studies including study type, sample size, demographics, treatment length, response rate, follow-up time, adverse effects, and recurrence.

Of 108 studies, twenty-four, representing 679 cases met the inclusion criteria. The clinical lesions evaluated included oral leukoplakia, erythroplakia (OEL), verrucous hyperplasia (OVH), oral lichen planus, larynx squamous cell carcinoma, and oral squamous cell carcinoma (OSCC). The mean complete response rate for topical retinoid therapy was 32%. The mean complete response rate for 1% bleomycin therapy and 0.5% bleomycin was 40.2% and 25%, respectively. The complete response rate of OVH, OEL, and OSCC to photodynamic therapy ranged from 66.7% to 100%. There are a paucity of data examining topical treatment of oral PMDs.

The authors found that the use of topical agents among patients with oral lesions may be a viable complement or even alternative to traditional surgery, radiation, or systemic chemotherapy, with the advantage of reducing systemic side effects and sparing important anatomic structures. This study of 679 cases represents the largest pooled sample size to date, and the preliminary studies in this systematic review provide support for further inquiry.

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