

ORAL SURGERY CARE



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Happy Winter!

Pull a chair up to the fire and settle in for a review of recent oral surgery literature.

This quarterly edition talks of third molars, trauma, and implants. I welcome any suggestions for topics or articles to be reviewed in future newsletters.

We really appreciate being part of your patient care team! We take the trust placed in us by your referrals seriously, and work to give your patients the best possible care and experience. Please contact me whenever I can be of any help.



Oral Surgery Care

Best Regards,

Brent Florine, DDS

Risk Factors for Root Resorption of Second Molars Associated with Impacted Mandibular Third Molars

Suter VGA, Rivola M,
Int J Oral Maxillofac Surg. 2019 Jun;48(6):801-809

External root resorption (ERR) affecting mandibular second molars (M2) may occur when the adjacent third molar (M3) is impacted in close proximity. This study attempted to assess the presence, severity, and location of ERR on M2 due to M3 using cone beam computed tomography (CBCT) scans and to identify associated factors. The angle between the axis of M2 and M3 was measured. ERR on M2 was classified as absent, slight, moderate, or severe. The location of contact between M3 and M2, the size of the dental follicle, and patient demographic characteristics were recorded. A total of 433 patients with 640 M3 were included.

A male predilection was found with regard to ERR. ERR was identified on 31.9% of M2 and was slight in 30.2%, moderate in 1.4%, and

severe in 0.3% of cases. The presence of ERR was associated with direct contact between M2 and M3, the angle between M2 and M3, the inclination of M3, and the location of contact. *This study showed ERR to be a frequent finding. ERR is associated with a mesioangular position of M3 in more than one third of cases, and a proximity ≤ 0.5 mm between M2 and M3 favors ERR.*

Craniofacial Injuries Seen With the Introduction of Bicycle-Share Electric Scooters in an Urban Setting

Trivedi B, Kesterke MJ, et al.
J Oral Maxillofac Surg. 2019 Aug 1

Standing electric scooters (e-scooters) are rapidly becoming popular modes of transportation in many urban areas across the United States. However, this increase in popularity has resulted in an increase in traumatic injuries associated with these modes of expedient travel. The purpose of the present study was to determine the types of craniofacial trauma directly related to e-scooter use in a major urban center (Dallas, TX). The authors performed a retrospective case series and examined the medical records of the patients who had presented to the emergency department (ED) for trauma related to e-scooter use. Descriptive statistics were calculated for all variables on patient presentation, including incident notes and patient interviews, demographic information, diagnostic tests, trauma (ie, location, type, severity), treatment (ie, type, admission,

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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.



Craniofacial Injuries...continued

outpatient referral, follow-up data), and contributing factors (ie, reported or detected alcohol use, use of protective equipment).

A total of 90 patients (56 males, 34 females; mean age, 31.8 years) had presented with scooter-related trauma to the ED during the first 7 months of scooters after their introduction to the metropolitan area. A total of 52 admissions (58% of all admissions) involved injuries of the head and face. The patients had presented with a myriad of craniofacial trauma, ranging from abrasions, lacerations, and concussions to intracranial hemorrhage and Le Fort II and III fractures. Of the 52 craniofacial injuries, 30 (58%) were considered severe (ie, fracture, internal hemorrhage, concussion, loss of consciousness, dental), and 22 (42%) were considered minor (ie, lacerations, contusion, abrasion). Alcohol use had been involved in 18% of all scooter-related trauma admissions, and no rider had reported wearing a helmet. *Injuries to the head and face were commonly found with e-scooter admissions in this sample, and the high prevalence of extremity injuries suggested that patients were breaking their fall during the crash. Craniofacial trauma related to e-scooter use could be significantly reduced by the wearing of a protective helmet.*

Sinus Bone Graft and Simultaneous Vertical Ridge Augmentation

Kang DW, Yun PY, et al.
Maxillofac Plast Reconstr Surg. 2019 Sep 16;41(1):36

This study attempted to examine the outcome of simultaneous maxillary sinus lifting, bone grafting, and vertical ridge augmentation through retrospective studies. From 2005 to 2010, patients with exhibited severe alveolar bone loss received simultaneous sinus lifting, bone grafting, and vertical ridge augmentations were selected. Fifteen patients who visited a university hospital were analyzed according to clinical records and radiography. Postoperative complications; success and survival rate of implants; complications of prosthesis; implant stability quotient (ISQ); vertical resorption of grafted bone after 1, 2, and 3 years after surgery; and final observation and marginal bone loss were evaluated. The average age of the patients was 54.2 years.

Among the 33 implants, six failed to survive and succeed, resulting in an 81.8% survival rate and an 81.8% success rate. Postoperative complications were characterized by eight cases of ecchymosis, four cases of exposure of the titanium mesh or membrane, three cases of peri-implantitis, three cases of hematoma, two cases of sinusitis, two cases of fixture fracture, one case of bleeding, one case of numbness, one case of trismus, and one case of fixture loss. Prosthetic complications involved two instances of screw loosening, one case of abutment fracture, and one case of food impaction. Resorption of grafted bone material was 0.23 mm after 1 year, 0.47 mm after 2 years, 0.41 mm after 3 years, and 0.37 mm at the final observation. Loss

of marginal bone was 0.12 mm after 1 year, and 0.20 mm at final observation. *When sinus lifting, bone grafting, and vertical ridge augmentation were performed simultaneously, postoperative complications increased, and survival rates were lower. For positive long-term prognosis, it is recommended that a sufficient recovery period be needed before implant placement to ensure good bone formation, and implant placement be delayed.*

Satisfaction Analysis of Patients with Single Implant Treatments Based on a Questionnaire Survey

Dong H, Zhou N, et al.
Patient Prefer Adherence. 2019 May 7;13:695-704

The factors influencing satisfaction of the patients with implant treatments are still unclear. This study seeks to evaluate the patients' satisfaction and to identify influencing factors, which will improve the medical quality of oral implantology. Patients who lost single teeth and received implant treatments were enrolled in hospital study between February 2016 and March 2018. A questionnaire survey was performed to assess patient satisfaction and data were collected at four time points. Information included gender, age, educational level, application of bone augmentation, type of prosthetic restoration, period of teeth loss, dentist qualification, and tooth position. Meanwhile, the satisfaction of the patients was evaluated by visual analog scale.

A total of 373 patients completed the questionnaires. The mean of overall satisfaction score was 69.05. Lower overall satisfaction score was found in patients who received bone augmentation and those with a longer period of teeth loss. In the bone augmentation group, the elements of pain and complication were significantly associated with a decrease in the median satisfaction score, and a similar result was obtained from the duration of operative time and healing response. On the other hand, the satisfaction scores for elements including the duration of operative time and healing response, aesthetics and psychology, and chewing function decreased with an extended period of teeth loss. Meanwhile, over half of respondents were more concerned about the survival time (40.70%) and success rate (20.49%) of implants. *The investigators concluded that bone augmentation and the period of teeth loss are negative factors affecting patient satisfaction, and the success rate and survival time of implants are considerable aspects for patients. It is essential to raise general awareness of oral hygiene and optimize the dental implant therapeutic process.*

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