

ORAL SURGERY CARE



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Fall 2023

Happy Fall!

As the weather turns and our schedules settle into their new seasonal routines, I hope you can find time to enjoy these summary reviews of some recent oral surgery and dental implant literature.

We very much appreciate being part of your patient care team, and take your trust in us seriously. We strive to give each patient a positive experience with our office, and we value any suggestions you may have to help us improve our care. Feel free to contact me whenever I can be of help.



Oral Surgery Care

Best Regards,

Dr. Brent Florine

Do Antihypertensive Medications Have an Effect on Dental Implants?

Sunil Mishra, Nithin Sonnahalli, et al.
Oral Maxillofac Surg 2023 Jun 17

The purpose of this systematic review was to compare the clinical outcomes of dental implants in users of antihypertensive medication with those of nonusers. This systematic review followed the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses and was registered in the International Prospective Register of Systematic Reviews. The electronic databases Medline (PubMed) and Central Cochrane were searched for relevant scientific literature published in English through May 2022. The focused question was, "Do patients taking antihypertensive medications have a similar impact on the clinical outcome and survival of dental implants compared with nonusers?"

A total of 49 articles were found, of which 3 articles were finally selected for a qualitative synthesis. The three studies included 959 patients. In all three studies, the commonly used

medication was renin-angiotensin system (RAS) inhibitors. Two studies mentioned implant survival rate, which was 99.4% in antihypertensive medication users and 96.1% in the nonusers. One study found a higher implant stability quotient (ISQ) in patients taking antihypertensive medication (75.7) compared with patients not taking antihypertensive medication (73.7). The limited available evidence showed that patient taking antihypertensive medications had comparable success rate and implant stability to patients not taking medications. *The studies included patients taking different antihypertensive medications, so a drug-specific conclusion regarding the clinical outcome of dental implants is not possible. Further studies are needed, including patients taking certain antihypertensive medications, to determine their effects on dental implants.*

Can ChatGPT be Used in Oral and Maxillofacial Surgery?

Yunus Balel
J Stomatol Oral Maxillofac Surg 2023 Apr 13;124(5)

The goal of this study was to assess the usability of the information generated by ChatGPT in oral and maxillofacial surgery. This assessment had two components: Firstly, to measure the quality of patient information provided, and secondly, to measure the quality of educational information in

continued on back page



Dr. Brent Florine received his undergraduate 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.

ChatGPT...continued

this field. Commonly asked questions by patients about oral and maxillofacial surgical procedures and technical questions for training purposes were selected to be posed to ChatGPT. The questions were divided into two categories, consisting of 60 Patient Questions and 60 Technical Questions. The specific topics covered were Impacted Teeth, Dental Implants, Temporomandibular Joint Diseases, and Orthognathic Surgery. ChatGPT provided responses to these questions on February 23, 2023. The answers were evaluated by oral and maxillofacial surgeons using a modified global quality scale.

The study involved 33 participating surgeons. The mean score for the answers to the Patient Questions was 4.62, while the mean score for answers to the Technical Questions was 3.1. The difference in scores between the two question categories was found to be statistically significant. There was no significant difference between the quality of the answers given to the questions across the different topics. *The authors found that ChatGPT has significant potential as a tool for patient information in oral and maxillofacial surgery. However, its use in training may not be completely safe at present. Surgeons should exercise caution when using ChatGPT and consider it as a supplement to their clinical knowledge and experience.*

Comparative Study of Frequency of Alveolar Osteitis, with and without using Platelet-Rich Fibrin in Mandibular Third Molar Surgery

Maryam Asif, Ahsan Ullah, et al.
Int J Dent 2023 Mar 31

Alveolar ostitis (AO) is the dissolution of blood clot due to enhanced local fibrinolysis and is caused by trauma to the jaw (direct) or because of bacterial involvement (indirect), which result in the activation of plasminogen pathway. Platelet-rich fibrin (PRF) is a platelet concentrate that comprises numerous autologous growth factors, and immune cells hence has the potential to expedite the healing process. The objective of the study was to determine the efficacy of PRF in the surgically extracted third molar in the context of its potential progress to AO.

A total of 180 patients of 18-65 years with unilateral painful mandibular third molars due to caries, failed endodontics treatment, and pericoronitis were included in the study. Exclusion criteria were patients who were medically compromised, smokers, alcoholic, poor oral hygiene, third

molar having associated periapical pathology, and receiving antibiotic regime in the last 2 weeks. Before starting surgical procedure, patients were randomly divided into two groups using lottery method. Group I received PRF in the extraction socket, while in Group II, the extraction site was left for normal healing as practiced in a standard procedure. Pain was assessed in terms of pain score, and it was recorded on a 10 mm visual analog scale on the first and third postoperative days. Mean age of the patients was 41.35 years. The mean age in Group I was 42.84 years, and in Group II, it was 40.54 years. Out of 180 patients, 90 (50.0%) were male and 90 (50.0%) were female, with a male-to-female ratio of 1 : 1. Frequency of AO following mandibular third molar surgery in Group I receiving PRF was 2.22% and in non-PRF group 12.22% (p-value = 0.010). *The authors concluded that the incidence of AO following mandibular third molar surgery was lower when PRF was used.*

Effectiveness of Palatally Positioned Implants in Severely Atrophic Edentulous Maxillae

Matheus Correa-Silva, Henrique Neto, et al.
Oral Maxillofac Surg 2023 Mar;27(1):1-8

The purpose of this systematic review was to define the effectiveness of palatally positioned dental implants placed in atrophic maxillae. Searches were performed in five databases including the gray literature, up to August 2021, by 2 independent reviewers, in order to answer the following research question: Is the palatal approach technique effective in the rehabilitation of atrophic maxillae? In the initial search, 1948 articles were found and after applying the inclusion and exclusion criteria, five studies were selected, none of which was a randomized clinical trial.

A total of 681 implants were placed, 549 of them with a palatal approach and 132 at the alveolar crest, with an effectiveness of 98.38% and 99.5%, respectively, with no statistically significant difference between the groups. In assessing the risk of bias, only one of the studies had a low risk of bias. *The authors concluded that implants installed with the palatal approach technique showed high effectiveness for rehabilitation of atrophic maxilla; however, few studies in the literature report this technique, requiring more controlled studies, and with less risk of bias, to confirm the results obtained in this systematic review.*

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