



Balancing Innovation and Proven Techniques in Oral and Maxillofacial Surgery

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1. Introduction

The field of oral and maxillofacial surgery is continuously evolving, with ongoing advancements in surgical techniques, materials, and pharmacological approaches that enhance patient outcomes [1–4]. This Special Issue of Surgeries, titled "Oral and Maxillofacial Surgery: Balance Between Innovative and Proven Procedures, Drugs, and Materials", brings together a collection of systematic reviews and primary research that highlight the importance of balancing innovative practices with established methods [5–12]. The articles featured in this Special Issue reflect the diverse and dynamic nature of the field, providing insights that are crucial for both clinical and academic advancements [5–12].

2. Highlights

2.1. Material Science in Oral and Maxillofacial Surgery

Material science plays a pivotal role in surgical success, especially where the degradation of biomaterials can significantly impact clinical outcomes [13–16]. In their systematic review "Mechanisms of Degradation of Collagen or Gelatin Materials (Hemostatic Sponges) in Oral Surgery", Catarino et al. offer a comprehensive analysis of the enzymatic degradation mechanisms affecting these materials [5]. Their work highlights the need for standardized protocols in laboratory evaluations to better understand and predict material behavior in clinical settings [5].

Another critical aspect of surgical practice is the choice of suture materials, which can influence both healing outcomes and patient comfort [17–20]. The systematic review "Evaluating and Comparing the Tensile Strength and Clinical Behavior of Monofilament Polyamide and Multifilament Silk Sutures" by de Oliveira et al. provides valuable insights into the mechanical and clinical properties of these sutures [6]. Their findings reveal that while monofilament polyamide sutures cause a less inflammatory reaction, multifilament silk sutures offer superior mechanical characteristics [6]. This research advocates for a tailored approach to suture selection, aligning material properties with specific clinical needs to achieve the best patient outcomes [6].

2.2. Clinical Management with Innovative and Established Techniques

The impact of pharmacological agents on surgical outcomes is another theme currently being explored [21–24]. In this Special Issue, Jones et al. examine "The Effect of Antihypertensive Agents on Dental Implant Stability, Osseointegration, and Survival Outcomes" [7], and their systematic review presents compelling evidence of how certain antihypertensive agents may enhance bone density and implant stability, though more research is needed to fully understand their effects on osseointegration [7]. The study in question is a testament to the intricate interplay between pharmacology and surgical practice, highlighting the potential of medications to influence surgical success [7].



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Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). In the context of reconstructive surgery, particularly for conditions such as lip carcinoma, the study "Surgical Lip Cancer Reconstruction in the COVID-19 Era: Are Free Flaps or Loco-Regional Flaps Better?" by Staglianò et al. discusses reconstructive options during the challenging COVID-19 era [8]. The importance of choosing between free and loco-regional flaps based on available resources, patient needs, and esthetic outcomes is currently a widely discussed issue [8,25–32]. The report by Staglianò et al. is an example of adapting innovative surgical techniques to suit the constraints imposed by a global health crisis, ultimately advocating for loco-regional flaps as a viable and effective option in the reconstruction of lip defects, balancing esthetic and functional outcomes [8].

2.3. Multidisciplinary Care, with Surgery Predominating

The importance of multidisciplinary approaches in improving patient care is another current concern [33–39]. The contribution titled "Guided Biopsy of a Radiopaque Lesion Simultaneous with Dental Implants' Placement" by Parise et al. discusses the benefits of using new technologies and techniques in dental surgery, particularly guided surgery, which is often flapless and facilitates immediate prosthetic loading [9]. This approach reduces bleeding risks, lowers surgical risks, and is less invasive [9].

Scarano et al.'s report on "Dermal Cosmetic Migration after Lip Augmentation Procedure" provides a unique perspective on managing complications from cosmetic procedures, combining clinical expertise with histological analysis [10]. The report details the case of a 34-year-old woman who experienced cheek swelling after a hyaluronic acid filler from a lip augmentation migrated, necessitating surgical removal and a histological analysis [10].

Similarly, Jordan et al.'s case report on "Nasal Floor Elevation—An Option of Premaxilla Augmentation" illustrates the potential of novel augmentation techniques in addressing severe maxillary atrophy, expanding the arsenal of surgical options available to practitioners [11]. The case report demonstrates that nasal floor elevation is a viable technique for augmenting the atrophic anterior maxilla, allowing the successful placement of implants and a bar-retained overdenture in a 75-year-old woman [11].

Finally, the report "Medication-Related Osteonecrosis of the Mandible Treated with Marginal Resection" by Chęciński et al. covers the successful treatment of a 70-year-old patient [12]. Following diagnosis, antibiotics and anticoagulants were administered, and a mandible resection was performed, with no recurrence after 3 years [12], thus underscoring the effectiveness of a well-selected resection range in severe medicine-related osteonecrosis of the jaw [12,40,41].

3. Concluding Thoughts

In conclusion, this Special Issue provides a rich tapestry of knowledge that spans innovative surgical techniques, material science, pharmacological impacts, and multidisciplinary approaches. The included research advances our understanding of oral and maxillofacial surgery and emphasizes the importance of a balanced approach in clinical practice. As the field evolves, researchers and clinicians must integrate these insights to enhance patient care and optimize surgical outcomes.

Through this Special Issue, the Editors aim to stimulate further research and discussion, fostering advancements that bridge the gap between novel and established surgeries.

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