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Editorial

Clinical Applications for Dentistry and Oral Health

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In the last few years, dentistry has expanded the scope of its research and increased its cooperation with other disciplines. This Special Issue focuses on the most recent significant applied innovations in the dental field, particularly with regard to technological and research aspects and how they can be integrated into clinical practice. The various applications of new biomaterials and techniques can lead to significant advances in all the main dental branches, such as restorative dentistry, prosthodontics, oral surgery, implantology, pediatric dentistry, and orthodontics.

The present Special Issue aimed to collect and present original research articles and reviews related to any of the topics mentioned above. Considering preventive dentistry and oral hygiene, much research has been conducted to evaluate the efficacy of different compounds (i.e., casein phosphopeptide, potassium nitrate, and sodium monofluorophosphate) for tooth desensitizing after in-office dental bleaching [1], as well as the use of fluoride products for the prevention of dental caries in children and adolescents [2], and the management of gingival bleeding in periodontal patients [3]. Another focal point of extensive research among the various branches of dentistry regards the evaluation of the different properties of dental materials, such as color and surface properties [4,5]. With regard to restorative dentistry, the research has been focused on both the mechanical properties and monomer release of new flowable giomers [6] as well as on the risk factors associated with cusp fractures in posterior permanent teeth [7].

Dental prosthesis represents another field with a significant amount of research conducted toward the introduction of new materials and technologies. In particular, some topics in this area have been the study of flabby ridge for complete dentures [8], the influence of preparations on flexural strength of different feldspatic porcelains [9], the trueness and precision of digital and conventional impression techniques for complete dental arch [10], the influence of hardware and software improvement of intraoral scanners on their accuracy [11], and the use of immediate-loaded mini-dental implants for the retention of mandibular overdentures [12].

In endodontics, the use of bioactive root canal sealers using the warm gutta-percha technique has been explored [13] as well as the efficacy of different types of Mineral Trioxide Aggregate (MTA) cements as direct pulp-capping agents [14]. In addition to that, some fundamental research has been conducted, encompassing the histological study of the dental pulp in diabetic patients [15], the biochemical evaluation of the inflamed dental pulp [16], and the mineralization, oxidative stress, and inflammation mechanisms in the pulp of primary teeth [17].

Concerning the oral surgery and periodontal surgery discipline, research has been presented on inferior alveolar nerve injury and the surgical extraction of mandibular third molars [18], alveolar ridge preservation in maxillary premolar and molar [19], the accuracy and feasibility of a zero-setup implant guide system made of a light-cured composite resin with simultaneous flapless sinus augmentation [20], new surgical techniques for the treatment of peri-implant disease [21], antibiotic prophylaxis in the prevention of

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postoperative infections [22], the early marginal bone loss in implantology [23], the perioperative removal of inflammatory tissues/products from sinus [24], and delivery of liposomes for bone regeneration [25].

Concerning orthodontic science, a novel digital technique to quantify interproximal enamel reduction has been evaluated [26], as well as a digital method to quantify the cement and enamel loss after debonding [27] and also quantify the effects of lithium chloride and nitric oxide inhibitor on orthodontic tooth movement [28]. In pediatric dentistry, the excision of lower lip mucocele using the injection of hydrocolloid has been reported [29].

Oral medicine and oral pathology have also raised the attention of researchers, with the evaluation of the effect of a dexamethasone solution in oral lichen planus patients [30] and with the description of a high-grade B-cell lymphoma in the maxillary sinus mimicking periapical inflammation [31], respectively. An additional interesting field of research has been the study of biomarkers from the mouth, in particular, the analysis of saliva test in the prediction of carious disease [32], the analysis of inflammatory markers from the gingival crevicular fluid during the orthodontic movement [33], and the salivary tests in oncohematological patients [34].

Finally, one of the latest trends in dental research is represented by the evaluation of the influence of apps and social media on the oral self-care of patients, for instance, periodontal [35] and orthodontic patients [36].

Of course, other reports are expected to complete and expand the information contained in the present Issue. Future studies are needed to evaluate recently introduced materials and techniques in restorative dentistry [37], prosthodontics [38], endodontics [39], periodontology [40], oral pathology [41] orthodontics [42], pediatric dentistry [43] and oral hygiene [44].

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