



EDITORIAL

Updates in the fields of dental anatomy, implantology and bone regeneration



For the 5th time, a special issue will be published in Annals of Anatomy, which deals specifically with recent research results in the field of dentistry.

Two publications focus on the anatomy of the maxillary sinus, with the basic anatomical features on the one hand (Lozano-Carrascal et al.) and the special circumstances in patients with cleidocranial dysostosis (Kulczyk et al.) on the other hand. A simple method of maxillary sinus volume assessment is presented in the paper by Przystanska et al. which based on linear dimensions.

One emphasis of this special issue is the use of various materials for guided tissue and bone regeneration. Andrei et al. summarize all important information about the anatomy of tooth-supporting structures, their diseases as well as related cells and molecular biology in the context of periodontal regeneration in a review article. In dogs, it is demonstrated that extracted teeth or dentin particles can be used for a successful socket augmentation (Calvo-Guirado et al.). Canullo et al. show that plasma of argon improves the surface conditions of graft materials and results in an increased protein absorption and cell adhesion of murine osteoblasts. Nanostructuring is considered as an improved alternative for e.g. implantable biomaterials. By using new nano-hydroxyapatite, comparable results to e.g. xenogeneic grafts are achieved in the treatment of critical-size bone defects (Kubasiewicz-Ross et al.). Bunoiu et al. show that nanochannel growth on the alloy surface is very stable in natural and artificial environments. The applicability of fractal dimension analysis as a complementary method for bone regeneration measurements is the aim of the work of Jurczyszyn et al.

In recent research about dental implants, ultrasound is used to analyze soft tissue regeneration around implants in various augmentation techniques (Pizio et al.). In addition, the efficacy of various short tissue-level dental implants and bone level implant systems is tested (Hadzik et al.; Makowiecki et al.).

We have succeeded in compiling an interesting and highly up to date special edition. We would like to thank all the authors for their contributions as well as the editorial team of Annals of Anatomy for their many years of cooperation.

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