

Ausgabe: KN 4-2016, S. 14f.

Thema: Knochenersatzmaterial aus kieferorthopädischer Sicht

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Literatur

1. Abshagen K, Schrödi I, Gerber T, Vollmar B: In vivo analysis of biocompatibility and vascularization of the synthetic bone grafting substitute NanoBone. *J Biomed Mater Res A* 91:557 (2009)
2. Canullo L, Dellavia C: Sinus lift using a nanocrystalline hydroxyapatite silica gel in severely resorbed maxillae: histological preliminary study. *Clin Implant Dent Relat Res* 11 Suppl 1:e7 (2009)
3. Cardaropoli D, Re S, Manuzzi W, Gaveglia L, Cardaropoli G: Bio-Oss collagen and orthodontic movement for the treatment of infrabony defects in the esthetic zone. *Int J Periodontics Restorative Dent* 26:553 (2006)
4. Feinberg SE, Vitt M: Effect of calcium phosphate ceramic implants on tooth eruption. *J Oral Maxillofac Surg* 46:124 (1988)
5. Feinberg SE, Weisbrode SE, Heintschel G: Radiographic and histological analysis of tooth eruption through calcium phosphate ceramics in the cat. *Arch Oral Biol* 34:975 (1989)
6. Götz L, Reichert C, Jäger A: Gingival invagination--a systematic review. *J Orofac Orthop* 72:409 (2011)
7. Götz W, Gerber T, Michel B, Lossdörfer S, Henkel KO, Heinemann F: Immunohistochemical characterization of nanocrystalline hydroxyapatite silica gel (NanoBone(r)) osteogenesis: a study on biopsies from human jaws. *Clin Oral Implants Res* 19:1016 (2008)
8. Holtgrave EA: Inhibition of tooth eruption through calcium-phosphate ceramic granules in the rat. *J Oral Maxillofac Surg* 47:1043 (1989)
9. Hossain MZ, Kyomen S, Tanne K: Biologic responses of autogenous bone and beta-tricalcium phosphate ceramics transplanted into bone defects to orthodontic forces. *Cleft Palate Craniofac J* 33:277 (1996)
10. Kawamoto T, Motohashi N, Kitamura A, Baba Y, Suzuki S, Kuroda T: Experimental tooth movement into bone induced by recombinant human bone morphogenetic protein-2. *Cleft Palate Craniofac J* 40:538 (2003)
11. Kawamoto T, Motohashi N, Kitamura A, Baba Y, Takahashi K, Suzuki S, et al.: A histological study on experimental tooth movement into bone induced by

recombinant human bone morphogenetic protein-2 in beagle dogs. Cleft Palate Craniofac J 39:439 (2002)

12. Kitamura A, Motohashi N, Kawamoto T, Baba Y, Suzuki S, Kuroda T: Tooth eruption into the newly generated bone induced by recombinant human bone morphogenetic protein-2. Cleft Palate Craniofac J 39:449 (2002)
13. Kolk A, Handschel J, Drescher W, Rothamel D, Kloss F, Blessmann M, Heiland M, Wolff KD, Smeets R: Current trends and future perspectives of bone substitute materials - from space holders to innovative biomaterials. J Craniomaxillofac Surg 40:706 (2012)
14. Linton JL, Sohn BW, Yook JI, Le Geros RZ: Effects of calcium phosphate ceramic bone graft materials on permanent teeth eruption in beagles. Cleft Palate Craniofac J 39:197 (2002)
15. Ogihara S, Wang HL: Periodontal regeneration with or without limited orthodontics for the treatment of 2- or 3-wall infrabony defects. J Periodontol 81:1734 (2010)
16. Proff P, Bayerlein T, Fanghänel J, Gerike W, Bienengraber V, Gedrange T: The application of bone graft substitutes for alveolar ridge preservation after orthodontic extractions and for augmentation of residual cleft defects. Folia Morphol (Warsz) 65:81 (2006)
17. Punke C, Zehlicke T, Just T, Holzhüter G, Gerber T, Pau HW: Matrix change of bone grafting substitute after implantation into guinea pig bulla. Folia Morphol (Warsz) 71:109 (2012)
18. Reichert C, Deschner J, Kasaj A, Jäger A: Guided tissue regeneration and orthodontics. A review of the literature. J Orofac Orthop 70:6 (2009)
19. Reichert C, Götz W, Reimann S, Keilig L, Hagner M, Bourauel C, Jäger A: Resorption behavior of a nanostructured bone substitute: in vitro investigation and clinical application. J Orofac Orthop 74:165 (2013)
20. Reichert C, Götz W, Smeets R, Wenghoefer M, Jäger A: The impact of nonautogenous bone graft on orthodontic treatment. Quintessence International 41:665 (2010)
21. Reichert C, Kutschera E, Wenghoefer M, Götz W, Jäger A: Ridge preservation with synthetic nanocrystalline hydroxyapatite reduces the severity of gingival invaginations - a prospective clinical study. J Orofac Orthop (accepted)
22. Reichert C, Wenghoefer M, Götz W, Jäger A: Pilot study on orthodontic space closure after guided bone regeneration. J Orofac Orthop 72:45 (2011)
23. Rumpel E, Wolf E, Kauschke E, Bienengraber V, Bayerlein T, Gedrange T, et al.: The biodegradation of hydroxyapatite bone graft substitutes in vivo. Folia Morphol (Warsz) 65:43 (2006)

24. Schneider B, Diedrich P: Interaktion von kieferorthopädischer Zahnbewegung und Hydroxylapatit-Keramik. Dtsch Zahnärztl Z 44:282 (1989)
25. Sugimoto A, Ohno K, Michi K, Kanegae H, Aigase S, Tachikawa T: Effect of calcium phosphate ceramic particle insertion on tooth eruption. Oral Surg Oral Med Oral Pathol 76:141 (1993)
26. Van Heest A, Swiontkowski M: Bone-graft substitutes. Lancet 353 Suppl 1:SI28 (1999)
27. Weijs WL, Siebers TJ, Kuijpers-Jagtman AM, Berge SJ, Meijer GJ, Borstlap WA: Early secondary closure of alveolar clefts with mandibular symphyseal bone grafts and beta-tri calcium phosphate (beta-TCP). Int J Oral Maxillofac Surg 39:424 (2010)
28. Wilcko WM, Wilcko T, Bouquot JE, Ferguson DJ: Rapid orthodontics with alveolar reshaping: two case reports of decrowding. Int J Periodontics Restorative Dent 21:9 (2001)