

Forcierte Extrusion – ein Behandlungskonzept für bisher ausweglose Fälle: Ein biologisches Konzept zum Erhalt tief zerstörter bzw. frakturierter Zähne

- [1] Baumgart R, Kuhn V, Hinterwimmer S, Krammer M, Mutschler Wolf: Zugkraftmessungen beim knöchernen Segmenttransport – in vivo Untersuchungen am Menschen. *Biomedizinische Technik* 49 (9), 248–256 (2004).
- [2] Berglundh T, Marinello CP, Lindhe J, Thilander B, Liljenberg B: Periodontal tissue reactions to orthodontic extrusion. An experimental study in the dog. *J Clin Periodontol* 18 (5), 330–336 (1991).
- [3] Berglundh T, Lindhe J: Dimension of the periimplant mucosa. Biological width revisited. *J Clin Periodontol* 23 (10), 971–973 (1996).
- [4] Bondemark L, Kurol J, Hallonsten AL, Andreasen JO: Attractive magnets for orthodontic extrusion of crown-root fractured teeth. *Am J Orthod Dentofacial Orthop* 112 (2), 187–193 (1997).
- [5] Carvalho CV, Bauer FP, Romito GA, Pannuti CM, De Micheli G: Orthodontic extrusion with or without circumferential supracrestal fiberotomy and root planing. *Int J Periodontics Restorative Dent* 26 (1), 87–93 (2006).
- [6] Cooke MS, Scheer B: Extrusion of fractured teeth. The evolution of practical clinical techniques. *Br Dent J* 149 (2), 50–53 (1980).
- [7] Coval NM: Physiological orthodontic extrusion of fractured incisors. *Chronicle* 36 (10), 252–256 (1973).
- [8] Gargiulo AW, Wentz FM, Orban B: Dimensions and relations of the dentogingival junction in humans. *J Periodontol* 32, 261–267 (1961).
- [9] Hamilton RS, Gutmann JL: Endodontic-orthodontic relationships: a review of integrated treatment planning challenges. *Int Endod J* 32 (5), 343–360 (1999).
- [10] Han G, Huang S, Von den Hoff JW, Zeng X, Kuijpers-Jagtman AM: Root resorption after orthodontic intrusion and extrusion: an intraindividual study. *Angle Orthod* 75 (6), 912–918 (2005).
- [11] Harder S, Mehl C, Kern M: Behandlungsmöglichkeiten bei tief frakturierten Pfeilerzähnen. *Quintessenz* 61, 1485–1494 (2010).
- [12] Ingber JS: Forced eruption. Part I. *J Periodontol* 45, 199–206 (1974).
- [13] Ingber JS: Forced eruption: part II. A method of treating nonrestorable teeth. Periodontal and restorative considerations. *J Periodontol* 47 (4), 203–216 (1976).
- [14] Johnston CD, Littlewood SJ: Retention in orthodontics. *Br Dent J* 218 (3), 119–122 (2015).
- [15] Kim SH, Tramontina VA, Papalexiou V, Luczyszyn SM, Grassi MB, de Fatima Scarpim M, Tanaka OM: Rapid orthodontic extrusion using an interocclusal appliance for the reestablishment of biologic width: a case report. *Quintessence Int* 42 (3), 201–204 (2011).
- [16] Kina JR, Dos Santos PH, Kina EF, Suzuki TY, Dos Santos PL: Periodontal and prosthetic biologic considerations to restore biological width in posterior teeth. *J Craniofac Surg* 22 (5), 1913–1916 (2011).
- [17] Korayem M, Flores-Mir C, Nassar U, Olfert K: Implant site development by orthodontic extrusion. A systematic review. *Angle Orthod* 78 (4), 752–760 (2008).
- [18] Lanning SK, Waldrop TC, Gunsolley JC, Maynard JG: Surgical crown lengthening: evaluation of the biological width. *J Periodontol* 74 (4), 468–474 (2003).
- [19] Lindhe J, Nyman S: Alterations of the position of the marginal soft tissue following periodontal surgery. *J Clin Periodontol* 7 (6), 525–530 (1980).
- [20] Lovdahl PE: Periodontal management and root extrusion of traumatized teeth. *Dent Clin North Am* 39 (1), 169–179 (1995).

- [21] Matthews D: Conclusive support for mechanical nonsurgical pocket therapy in the treatment of periodontal disease. How effective is mechanical nonsurgical pocket therapy? *Evid Based Dent* 6 (3), 68–69 (2005).
- [22] Mehl C, Wolfart S, Kern M: Orthodontic extrusion with magnets: a case report. *Quintessence Int* 39 (5), 371–379 (2008).
- [23] Neumeyer S, Wachtel H: Die Replantation und orthodontische Extrusion hoch resezierter Zähne. *Quintessenz* 60, 1141–1149 (2009).
- [24] Neumeyer S: yah-. Masterthese MOP Freiburg 2010.
- [25] Persson M, Serneke D: Orthodontic extrusion of tooth with cervical root fracture facilitating crown preparation. *Tandlakartidningen* 69 (22), 1263–1269 (1977).
- [26] Rasperini G, Siciliano VI, Cafiero C, Salvi GE, Blasi A, Aglietta M: Crestal bone changes at teeth and implants in periodontally healthy and periodontally compromised patients. A 10-year comparative case-series study. *J Periodontol* 85 (6), e152–159 (2014).
- [27] Rupp R: Root resorption related to orthodontics and other factors: a review of the literature. *J Gen Orthod* 6 (3), 25–29 (1995).
- [28] Simon JH, Lythgoe JB, Torabinejad M: Clinical and histologic evaluation of extruded endodontically treated teeth in dogs. *Oral Surg Oral Med Oral Pathol* 50 (4), 361–371 (1980).
- [29] Tarnow DP, Magner AW, Fletcher P: The effect of the distance from the contact point to the crest of bone on the presence or absence of the interproximal dental papilla. *J Periodontol* 63 (12), 995–996 (1992).
- [30] Whitworth JM, Walls AW, Wassell RW: Crowns and extra-coronal restorations: endodontic considerations: the pulp, the root-treated tooth and the crown. *Br Dent J* 192 (6), 315–320, 323–327 (2002).
- [31] Will LA: Stability and retention. *Front Oral Biol* 18, 56–63 (2016).
- [32] Young L, Binderman I, Yaffe A, Beni L, Vardimon AD: Fiberotomy enhances orthodontic tooth movement and diminishes relapse in a rat model. *Orthod Craniofac Res* 16 (3), 161–168 (2013).