

BIBLIOGRAPHY

- Akca, K., Akkocaoglu, M., Comert, A., Tekdemir, I. and Cehreli, M. C. (2007) Bone strains around immediately loaded implants supporting mandibular overdentures in human cadavers. *Int J Oral Maxillofac Implants* **22**, 101-9.
- Akpinar, I., Demirel, F., Parnas, L. and Sahin, S. (1996) A comparison of stress and strain distribution characteristics of two different rigid implant designs for distal-extension fixed prostheses. *Quintessence Int* **27**, 11-7.
- An, Y. H. and Draughn, R. A. (1999) *Mechanical testing of bone and the bone-implant interface*. CRC press.
- Aranyawonsakorn, S., Torut, S., Suzuki, E. Y. and Suzuki, B. (2007) Insertion angulation protocol for miniscrew implant placement in the dentoalveolar area: a systematic literature review. *J Dent Assoc Thai* **57**(5), In press.
- Atmaram, G. H. and Mohammed, H. (1983a) Stress analysis of single-tooth implants. I. Effect of elastic parameters and geometry of implant. *Implantologist* **3**, 24-9.
- Atmaram, G. H. and Mohammed, H. (1983b) Stress analysis of single-tooth implants. II. Effect of implant root-length variation and pseudo periodontal ligament incorporation. *Implantologist* **3**, 58-62.
- Atmaram, G. H. and Mohammed, H. (1983c) Stress analysis of single-tooth implants. III. Effect of elastic modulus and thickness of pseudo periodontal ligament. *Implantologist* **3**, 69-72.
- Benzing, U. R., Gall, H. and Weber, H. (1995) Biomechanical aspects of two different implant-prosthetic concepts for edentulous maxillae. *Int J Oral Maxillofac Implants* **10**, 188-98.
- Block, M. S. and Hoffman, D. R. (1995) A new device for absolute anchorage for orthodontics. *Am J Orthod Dentofacial Orthop* **107**, 251-8.
- Bohm, B. and Fuhrmann, R. (2006) Clinical application and histological examination of the FAMI screw for skeletal anchorage--a pilot study. *J Orofac Orthop* **67**, 175-85.

- Bozkaya, D., Muftu, S. and Muftu, A. (2004) Evaluation of load transfer characteristics of five different implants in compact bone at different load levels by finite elements analysis. *J Prosthet Dent* **92**, 523-30.
- Brosh, T., Pilo, R. and Sudai, D. (1998) The influence of abutment angulation on strains and stresses along the implant/bone interface: comparison between two experimental techniques. *J Prosthet Dent* **79**, 328-34.
- Buchter, A., Wiechmann, D., Gaertner, C., Hendrik, M., Vogeler, M., Wiesmann, H. P., Piffko, J. and Meyer, U. (2006) Load-related bone modelling at the interface of orthodontic micro-implants. *Clin Oral Implants Res* **17**, 714-22.
- Buchter, A., Wiechmann, D., Koerdt, S., Wiesmann, H. P., Piffko, J. and Meyer, U. (2005) Load-related implant reaction of mini-implants used for orthodontic anchorage. *Clin Oral Implants Res* **16**, 473-9.
- Byrne, D., Jacobs, S., O'Connell, B., Houston, F. and Claffey, N. (2006) Preloads generated with repeated tightening in three types of screws used in dental implant assemblies. *J Prosthodont* **15**, 164-71.
- Carano, A., Lonardo, P., Velo, S. and Incorvati, C. (2005a) Mechanical properties of three different commercially available miniscrews for skeletal anchorage. *Prog Orthod* **6**, 82-97.
- Carano, A., Velo, S., Incorvati, C. and Poggio, P. (2004) Clinical applications of the Mini-Screw-Anchorage-System (M.A.S.) in the maxillary alveolar bone. *Prog Orthod* **5**, 212-35.
- Carano, A., Velo, S., Leone, P. and Siciliani, G. (2005b) Clinical applications of the miniscrew anchorage system. *J Clin Orthod* **39**, 9-24; quiz 29-30.
- Cattaneo, P. M., Dalstra, M. and Melsen, B. (2007) Analysis of stress and strain around orthodontically loaded implants: an animal study. *Int J Oral Maxillofac Implants* **22**, 213-25.
- Cehreli, M., Duyck, J., De Cooman, M., Puers, R. and Naert, I. (2004) Implant design and interface force transfer. A photoelastic and strain-gauge analysis. *Clin Oral Implants Res* **15**, 249-57.
- Cehreli, M. C., Comert, A., Akkocaoglu, M., Tekdemir, I. and Akca, K. (2006) Towards the limit of quantifying low-amplitude strains on bone and in

coagulum around immediately loaded oral implants in extraction sockets. *Med Biol Eng Comput* **44**, 86-94.

- Chae, J. M. (2006) A new protocol of Tweed-Merrifield directional force technology with microimplant anchorage. *Am J Orthod Dentofacial Orthop* **130**, 100-9.
- Chang, Y. J., Lee, H. S. and Chun, Y. S. (2004) Microscrew anchorage for molar intrusion. *J Clin Orthod* **38**, 325-30; quiz 333.
- Chen, C. H., Chang, C. S., Hsieh, C. H., Tseng, Y. C., Shen, Y. S., Huang, I. Y., Yang, C. F. and Chen, C. M. (2006a) The use of microimplants in orthodontic anchorage. *J Oral Maxillofac Surg* **64**, 1209-13.
- Chen, Y. J., Chen, Y. H., Lin, L. D. and Yao, C. C. (2006b) Removal torque of miniscrews used for orthodontic anchorage--a preliminary report. *Int J Oral Maxillofac Implants* **21**, 283-9.
- Cheng, S. J., Tseng, I. Y., Lee, J. J. and Kok, S. H. (2004) A prospective study of the risk factors associated with failure of mini-implants used for orthodontic anchorage. *Int J Oral Maxillofac Implants* **19**, 100-6.
- Chung, K. R., Kim, S. H. and Kook, Y. A. (2004) The C-orthodontic micro-implant. *J Clin Orthod* **38**, 478-86; quiz 487-8.
- Clelland, N. L., Ismail, Y. H., Zaki, H. S. and Pipko, D. (1991) Three-dimensional finite element stress analysis in and around the Screw-Vent implant. *Int J Oral Maxillofac Implants* **6**, 391-8.
- Cook, S. D., Klawitter, J. J. and Weinstein, A. M. (1981) The influence of implant elastic modulus on the stress distribution around LTI carbon and aluminum oxide dental implants. *J Biomed Mater Res* **15**, 879-87.
- Cook, S. D., Weinstein, A. M. and Klawitter, J. J. (1982) A three-dimensional finite element analysis of a porous rooted Co-Cr-Mo alloy dental implant. *J Dent Res* **61**, 25-9.
- Cope, J. B. (2005) Temporary anchorage devies in orthodontics: a paradigm shift. *Semin Orthod* **11**, 3-9.
- Costa, A., Pasta, G. and Bergamaschi, G. (2005) Intraoral hard and soft tissue depths for temporary anchorage devies. *Semin Orthod* **11**, 10-15.
- Costa, A., Raffainl, M. and Melsen, B. (1998) Miniscrews as orthodontic anchorage: a preliminary report. *Int J Adult Orthodon Orthognath Surg* **13**, 201-9.

- Darbar, U. R., Huggett, R. and Harrison, A. (1994) Stress analysis techniques in complete dentures. *J Dent* **22**, 259-64.
- de Vree, J. H., Peters, M. C. and Plasschaert, A. J. (1983) A comparison of photoelastic and finite element stress analysis in restored tooth structures. *J Oral Rehabil* **10**, 505-17.
- Deguchi, T., Nasu, M., Murakami, K., Yabuuchi, T., Kamioka, H. and Takano-Yamamoto, T. (2006) Quantitative evaluation of cortical bone thickness with computed tomographic scanning for orthodontic implants. *Am J Orthod Dentofacial Orthop* **129**, 721 e7-12.
- Deguchi, T., Takano-Yamamoto, T., Kanomi, R., Hartsfield, J. K., Jr., Roberts, W. E. and Garetto, L. P. (2003) The use of small titanium screws for orthodontic anchorage. *J Dent Res* **82**, 377-81.
- DeTolla, D. H., Andreana, S., Patra, A., Buhite, R. and Comella, B. (2000) Role of the finite element model in dental implants. *J Oral Implantol* **26**, 77-81.
- Dowling, N. E. (1999) *Mechanical behavior of materials. Engineering methods for deformation, fracture, and fatigue*. Prentice Hall International, Inc., United states.
- Eckfeldt, A., Christiansson, U., Eriksson, T., Linden, U., Lundqvist, S., Rundcrantz, T., Johansson, L. A., Nilner, K. and Billstrom, C. (2001) A retrospective analysis of factors associated with multiple implant failures in maxillae. *Clin Oral Implants Res* **12**, 462-7.
- Freire, J. N., Silva, N. R., Gil, J. N., Magini, R. S. and Coelho, P. G. (2007) Histomorphologic and histomophometric evaluation of immediately and early loaded mini-implants for orthodontic anchorage. *Am J Orthod Dentofacial Orthop* **131**, 704 e1-9.
- Fritz, U., Ehmer, A. and Diedrich, P. (2004) Clinical suitability of titanium microscrews for orthodontic anchorage-preliminary experiences. *J Orofac Orthop* **65**, 410-8.
- Gainsforth, B. L. and Higley, L. B. (1945) A study of orthodontic anchorage possibilities in basal bone. *Am J Orthod Oral Surg* **31**, 406-117.

- Gallas, M. M., Abeleira, M. T., Fernandez, J. R. and Burguera, M. (2005) Three-dimensional numerical simulation of dental implants as orthodontic anchorage. *Eur J Orthod* **27**, 12-6.
- Gautam, P. and Valiathan, A. (2006) Implants for anchorage. *Am J Orthod Dentofacial Orthop* **129**, 174; author reply 174.
- Gelgor, I. E., Buyukyilmaz, T., Karaman, A. I., Dolanmaz, D. and Kalayci, A. (2004) Intraosseous screw-supported upper molar distalization. *Angle Orthod* **74**, 838-50.
- Geng, J. P., Tan, K. B. C. and Liu, G. R. (2001) Application of finite element analysis in implant dentistry: a review of the literature. *J Prosthet Dent* **85**, 585-598.
- Giancotti, A., Greco, M., Mampieri, G. and Arcuri, C. (2004) The use of titanium miniscrews for molar protraction in extraction treatment. *Prog Orthod* **5**, 236-47.
- Heidemann, W., Terheyden, H. and Louis Gerlach, K. (2001) Analysis of the osseous/metal interface of drill free screws and self-tapping screws. *J Maxillofac Surg* **29**, 69-74.
- Hekimoglu, C., Anil, N. and Cehreli, M. C. (2004) Analysis of strain around endosseous dental implants opposing natural teeth or implants. *J Prosthet Dent* **92**, 441-6.
- Herman, R. J., Currier, G. F. and Miyake, A. (2006) Mini-implant anchorage for maxillary canine retraction: a pilot study. *Am J Orthod Dentofacial Orthop* **130**, 228-35.
- Higuchi, K. W. and Slack, J. M. (1991) The use of titanium fixtures for intraoral anchorage to facilitate orthodontic tooth movement. *Int J Oral Maxillofac Implants* **6**, 338-44.
- Himmlova, L., Dostalova, T., Kacovsky, A. and Konvickova, S. (2004) Influence of implant length and diameter on stress distribution: a finite element analysis. *J Prosthet Dent* **91**, 20-5.
- Holmgren, E. P., Seckinger, R. J., Kilgren, L. M. and Mante, F. (1998) Evaluating parameters of osseointegrated dental implants using finite element analysis--a two-dimensional comparative study examining the effects of implant diameter, implant shape, and load direction. *J Oral Implantol* **24**, 80-8.

- Huang, L. H., Shotwell, J. L. and Wang, H. L. (2005) Dental implants for orthodontic anchorage. *Am J Orthod Dentofacial Orthop* **127**, 713-22.
- Huiskes, R. and Chao, E. Y. (1983) A survey of finite element analysis in orthopedic biomechanics: the first decade. *J Biomech* **16**, 385-409.
- Huja, S. S., Litsky, A. S., Beck, F. M., Johnson, K. A. and Larsen, P. E. (2005) Pull-out strength of monocortical screws placed in the maxillae and mandibles of dogs. *Am J Orthod Dentofacial Orthop* **127**, 307-13.
- Iplikcioglu, H. and Akca, K. (2002) Comparative evaluation of the effect of diameter, length and number of implants supporting three-unit fixed partial prostheses on stress distribution in the bone. *J Dent* **30**, 41-6.
- Iplikcioglu, H., Akca, K., Cehreli, M. C. and Sahin, S. (2003) Comparison of non-linear finite element stress analysis with in vitro strain gauge measurements on a Morse taper implant. *Int J Oral Maxillofac Implants* **18**, 258-65.
- Ishii, T., Nojima, K., Nishii, Y., Takaki, T. and Yamaguchi, H. (2004) Evaluation of the implantation position of mini-screws for orthodontic treatment in the maxillary molar area by a micro CT. *Bull Tokyo Dent Coll* **45**, 165-72.
- Ismail, Y. H., Pahountis, L. N. and Fleming, J. F. (1987) Comparison of two-dimensional and three-dimensional finite element analysis of a blade implant. *Int J Oral Implantol* **4**, 25-31.
- Iwasaki, L. R., Haack, J. E., Nickel, J. C. and Morton, J. (2000) Human tooth movement in response to continuous stress of low magnitude. *Am J Orthod Dentofacial Orthop* **117**, 175-83.
- Jeon, Y. J., Kim, Y. H., Son, W. S. and Hans, M. G. (2006) Correction of a canted occlusal plane with miniscrews in a patient with facial asymmetry. *Am J Orthod Dentofacial Orthop* **130**, 244-52.
- Kang, S., Lee, S. J., Ahn, S. J., Heo, M. S. and Kim, T. W. (2007) Bone thickness of the palate for orthodontic mini-implant anchorage in adults. *Am J Orthod Dentofacial Orthop* **131**, S74-81.
- Kanomi, R. (1997) Mini-implant for orthodontic anchorage. *J Clin Orthod* **31**, 763-7.
- Kawakami, M., Miyawaki, S., Noguchi, H. and Kirita, T. (2004) Screw-type implants used as anchorage for lingual orthodontic mechanics: a case of bimaxillary protrusion with second premolar extraction. *Angle Orthod* **74**, 715-9.

- Kim, J. W., Ahn, S. J. and Chang, Y. I. (2005) Histomorphometric and mechanical analyses of the drill-free screw as orthodontic anchorage. *Am J Orthod Dentofacial Orthop* **128**, 190-4.
- Kitai, N., Yasuda, Y. and Takada, K. (2002) A stent fabricated on a selectively colored stereolithographic model for placement of orthodontic mini-implants. *Int J Adult Orthodon Orthognath Surg* **17**, 264-6.
- Kitamura, E., Stegaroiu, R., Nomura, S. and Miyakawa, O. (2004) Biomechanical aspects of marginal bone resorption around osseointegrated implants: considerations based on a three-dimensional finite element analysis. *Clin Oral Implants Res* **15**, 401-12.
- Korioth, T. W. and Versluis, A. (1997) Modeling the mechanical behavior of the jaws and their related structures by finite element (FE) analysis. *Crit Rev Oral Biol Med* **8**, 90-104.
- Kravitz, N. D. and Kusnoto, B. (2007) Risks and complications of orthodontic miniscrews. *Am J Orthod Dentofacial Orthop* **131**, S43-51.
- Kwok, A. W., Finkelstein, J. A., Woodside, T., Hearn, T. C. and Hu, R. W. (1996) Insertional torque and pull-out strengths of conical and cylindrical pedicle screws in cadaveric bone. *Spine* **21**, 2429-34.
- Kyung, H. M., Park, H. S., Bae, S. M., Sung, J. H. and Kim, I. B. (2003a) Development of orthodontic micro-implants for intraoral anchorage. *J Clin Orthod* **37**, 321-8; quiz 314.
- Kyung, H. M., Park, H. S., Bae, S. M., Sung, J. H. and Kim, I. B. (2004) The lingual plain-wire system with micro-implant anchorage. *J Clin Orthod* **38**, 388-95.
- Kyung, S. H., Hong, S. G. and Park, Y. C. (2003b) Distalization of maxillary molars with a midpalatal miniscrew. *J Clin Orthod* **37**, 22-6.
- Labanauskaite, B., Jankauskas, G., Vasiliauskas, A. and Haffar, N. (2005) Implants for orthodontic anchorage. Meta-analysis. *Stomatologija* **7**, 128-32.
- Lee, B. W. (1995) The force requirements for tooth movement, Part I: Tipping and bodily movement. *Aust Orthod J* **13**, 238-48.
- Lee, J. S., Kim, D. H., Park, Y. C., Kyung, S. H. and Kim, T. K. (2004) The efficient use of midpalatal miniscrew implants. *Angle Orthod* **74**, 711-4.

- Lim, S. A., Cha, J. Y. and Hwang, C. J. (2008) Insertion torque of orthodontic miniscrews according to changes in shape, diameter and length. *Angle Orthod* **78**(2), 234-240.
- Lin, J. C. and Liou, E. J. (2003) A new bone screw for orthodontic anchorage. *J Clin Orthod* **37**, 676-81.
- Linkow, L. I. (1969) The endosseous blade implant and its use in orthodontics. *Int J Orthod* **18**, 149-154.
- Liou, E. J., Pai, B. C. and Lin, J. C. (2004) Do miniscrews remain stationary under orthodontic forces? *Am J Orthod Dentofacial Orthop* **126**, 42-7.
- Maino, B. G., Bednar, J., Pagin, P. and Mura, P. (2003) The spider screw for skeletal anchorage. *J Clin Orthod* **37**, 90-7.
- Markarian, R. A., Ueda, C., Sendyk, C. L., Lagana, D. C. and Souza, R. M. (2007) Stress distribution after installation of fixed frameworks with marginal gaps over angled and parallel implants: a photoelastic analysis. *J Prosthodont* **16**, 117-22.
- McGuinness, N., Wilson, A. N., Jones, M., Middleton, J. and Robertson, N. R. (1992) Stresses induced by edgewise appliances in the periodontal ligament--a finite element study. *Angle Orthod* **62**, 15-22.
- Mellal, A., Wiskott, H. W., Botsis, J., Scherrer, S. S. and Belser, U. C. (2004) Stimulating effect of implant loading on surrounding bone. Comparison of three numerical models and validation by in vivo data. *Clin Oral Implants Res* **15**, 239-48.
- Melsen, B. and Costa, A. (2000) Immediate loading of implants used for orthodontic anchorage. *Clin Orthod Res* **3**, 23-8.
- Melsen, B. and Lang, N. P. (2001) Biological reactions of alveolar bone to orthodontic loading of oral implants. *Clin Oral Implants Res* **12**, 144-52.
- Menicucci, G., Mossolov, A., Mozzati, M., Lorenzetti, M. and Preti, G. (2002) Tooth-implant connection: some biomechanical aspects based on finite element analyses. *Clin Oral Implants Res* **13**, 334-41.
- Meroueh, K. A., Watanabe, F. and Mentag, P. J. (1987) Finite element analysis of partially edentulous mandible rehabilitated with an osteointegrated cylindrical implant. *J Oral Implantol* **13**, 215-38.

- Meyer, U., Vollmer, D., Runte, C., Bourauel, C. and Joos, U. (2001) Bone loading pattern around implants in average and atrophic edentulous maxillae: a finite-element analysis. *J Craniomaxillofac Surg* **29**, 100-5.
- Miyamoto, I., Tsuboi, Y., Wada, E., Suwa, H. and Iizuka, T. (2005) Influence of cortical bone thickness and implant length on implant stability at the time of surgery--clinical, prospective, biomechanical, and imaging study. *Bone* **37**, 776-80.
- Miyawaki, S., Koyama, I., Inoue, M., Mishima, K., Sugahara, T. and Takano-Yamamoto, T. (2003) Factors associated with the stability of titanium screws placed in the posterior region for orthodontic anchorage. *Am J Orthod Dentofacial Orthop* **124**, 373-8.
- Morea, C., Dominguez, G. C., Wuo Adu, V. and Tortamano, A. (2005) Surgical guide for optimal positioning of mini-implants. *J Clin Orthod* **39**, 317-21.
- Motoyoshi, M., Yano, S., Tsuruoka, T. and Shimizu, N. (2005) Biomechanical effect of abutment on stability of orthodontic mini-implant. A finite element analysis. *Clin Oral Implants Res* **16**, 480-5.
- Mott, R. (2004) *Machine elements in mechanical design*. Pearson Prentice Hall (Pearson education, Inc.), United state of America.
- Naconecy, M. M., Teixeira, E. R., Shinkai, R. S., Frasca, L. C. and Cervieri, A. (2004) Evaluation of the accuracy of 3 transfer techniques for implant-supported prostheses with multiple abutments. *Int J Oral Maxillofac Implants* **19**, 192-8.
- Natali, A. N. (2003) *Dental biomechanics*. Taylor & Francis, Taylor and Francis Group, London, UK and New York, USA
- Nishimura, R. D., Ochiai, K. T., Caputo, A. A. and Jeong, C. M. (1999) Photoelastic stress analysis of load transfer to implants and natural teeth comparing rigid and semirigid connectors. *J Prosthet Dent* **81**, 696-703.
- Ochiai, K. T., Ozawa, S., Caputo, A. A. and Nishimura, R. D. (2003) Photoelastic stress analysis of implant-tooth connected prostheses with segmented and nonsegmented abutments. *J Prosthet Dent* **89**, 495-502.

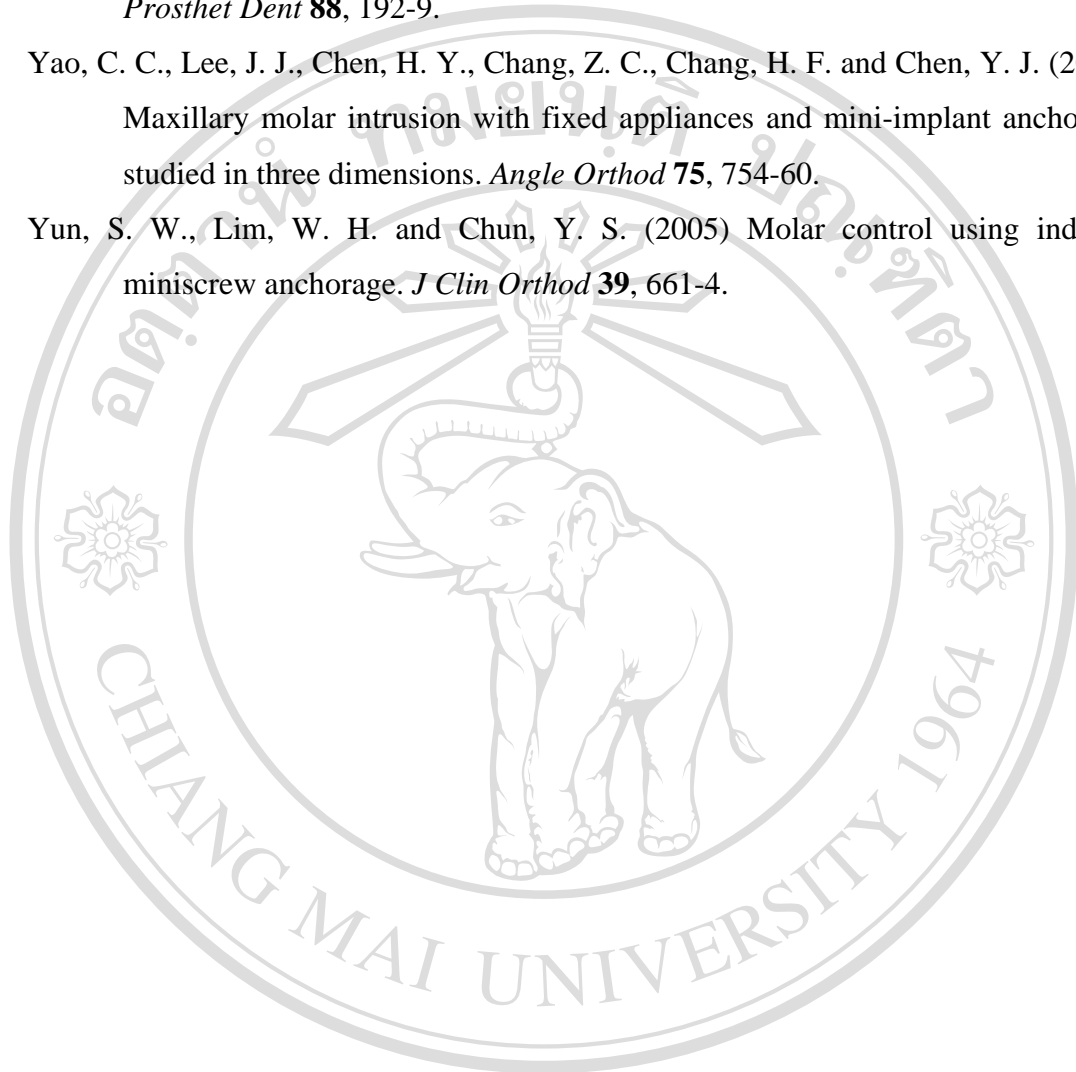
- Odman, J., Lekholm, U., Jemt, T., Branemark, P. I. and Thilander, B. (1988) Osseointegrated titanium implants--a new approach in orthodontic treatment. *Eur J Orthod* **10**, 98-105.
- Ohashi, E., Pecho, O. E., Moron, M. and Lagravere, M. O. (2006) Implant vs screw loading protocols in orthodontics. *Angle Orthod* **76**, 721-7.
- Ohnishi, H., Yagi, T., Yasuda, Y. and Takada, K. (2005) A mini-implant for orthodontic anchorage in a deep overbite case. *Angle Orthod* **75**, 444-52.
- Olsen, S., Ferguson, S. J., Sigrist, C., Fritz, W. R., Nolte, L. P., Hallermann, W. and Caversaccio, M. (2005) A novel computational method for real-time preoperative assessment of primary dental implant stability. *Clin Oral Implants Res* **16**, 53-9.
- Ozcelik, T. and Ersoy, A. E. (2007) An investigation of tooth/implant-supported fixed prosthesis designs with two different stress analysis methods: an in vitro study. *J Prosthodont* **16**, 107-16.
- Paik, C. H., Woo, Y. J., Kim, J. and Park, J. U. (2002) Use of miniscrews for intermaxillary fixation of lingual-orthodontic surgical patients. *J Clin Orthod* **36**, 132-6; quiz 145.
- Papadopoulos, M. A. and Tarawneh, F. (2007) The use of miniscrew implants for temporary skeletal anchorage in orthodontics: a comprehensive review. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* **103**, e6-15.
- Park, H. S., Bae, S. M., Kyung, H. M. and Sung, J. H. (2001) Micro-implant anchorage for treatment of skeletal Class I bialveolar protrusion. *J Clin Orthod* **35**, 417-22.
- Park, H. S., Bae, S. M., Kyung, H. M. and Sung, J. H. (2004a) Simultaneous incisor retraction and distal molar movement with microimplant anchorage. *World J Orthod* **5**, 164-71.
- Park, H. S., Jeong, S. H. and Kwon, O. W. (2006) Factors affecting the clinical success of screw implants used as orthodontic anchorage. *Am J Orthod Dentofacial Orthop* **130**, 18-25.
- Park, H. S., Kwon, T. G. and Sung, J. H. (2004b) Nonextraction treatment with microscrew implants. *Angle Orthod* **74**, 539-49.

- Poggio, P. M., Incorvati, C., Velo, S. and Carano, A. (2006) "Safe zones": a guide for miniscrew positioning in the maxillary and mandibular arch. *Angle Orthod* **76**, 191-7.
- Proffit, W. R., Fields, H. W. and Sarver, D. M. (2007) Contemporary orthodontics. 4 ed. Mosby Elsevier, St. Louis.
- Rangert, B., Gunne, J., Glantz, P. O. and Svensson, A. (1995) Vertical load distribution on a three-unit prosthesis supported by a natural tooth and a single Branemark implant. An in vivo study. *Clin Oral Implants Res* **6**, 40-6.
- Rees, D. W. A. (1997) *Basic solid mechanics* Macmillan, London.
- Reitman, C. A., Nguyen, L. and Fogel, G. R. (2004) Biomechanical evaluation of relationship of screw pullout strength, insertional torque, and bone mineral density in the cervical spine. *J Spinal Disord Tech* **17**, 306-11.
- Ren, Y., Maltha, J. C. and Kuijpers-Jagtman, A. M. (2003) Optimum force magnitude for orthodontic tooth movement: a systematic literature review. *Angle Orthod* **73(1)**, 86-92.
- Richmond, B. G., Wright, B. W., Grosse, I., Dechow, P. C., Ross, C. F., Spencer, M. A. and Strait, D. S. (2005) Finite element analysis in functional morphology. *Anat Rec A Discov Mol Cell Evol Biol* **283**, 259-74.
- Roberts, W. E., Helm, F. R., Marshall, K. J. and Gongloff, R. K. (1989) Rigid endosseous implants for orthodontic and orthopedic anchorage. *Angle Orthod* **59**, 247-56.
- Roberts, W. E., Marshall, K. J. and Mozsary, P. G. (1990) Rigid endosseous implant utilized as anchorage to protract molars and close an atrophic extraction site. *Angle Orthod* **60**, 135-52.
- Romeed, S. A., Fok, S. L. and Wilson, N. H. (2006) A comparison of 2D and 3D finite element analysis of a restored tooth. *J Oral Rehabil* **33**, 209-15.
- Ross, C. F. (2005) Finite element analysis in vertebrate biomechanics. *Anat Rec A Discov Mol Cell Evol Biol* **283**, 253-8.
- Rothbart, H. A. (1996) *Mechanical design handbook*. McGraw-Hill companies, Inc., United state of America.
- Sadowsky, S. J. and Caputo, A. A. (2004) Stress transfer of four mandibular implant overdenture cantilever designs. *J Prosthet Dent* **92**, 328-36.

- Sakoh, J., Wahlmann, U., Stender, E., Nat, R., Al-Nawas, B. and Wagner, W. (2006) Primary stability of a conical implant and a hybrid, cylindric screw-type implant in vitro. *Int J Oral Maxillofac Implants* **21**, 560-6.
- Samuels, R. H. (1996) A review of orthodontic face-bow injuries and safety equipment. *Am J Orthod Dentofacial Orthop* **110**, 269-72.
- Sanchez-Garces, M. A. and Gay-Escoda, C. (2004) Periimplantitis. *Med Oral Patol Oral Cir Bucal* **9 Suppl**, 69-74; 63-9.
- Schnelle, M. A., Beck, F. M., Jaynes, R. M. and Huja, S. S. (2004) A radiographic evaluation of the availability of bone for placement of miniscrews. *Angle Orthod* **74**, 832-7.
- Seehawong, N. (2006) Parametric analysis of miniscrew implant on stress distribution in the bone using finite element method. In *Department of Mechanical Engineering*, Vol. Master of Engineering (Mechanical Engineering). Chiang Mai University, Thailand.
- Sevimay, M., Turhan, F., Kilicarslan, M. A. and Eskitascioglu, G. (2005) Three-dimensional finite element analysis of the effect of different bone quality on stress distribution in an implant-supported crown. *J Prosthet Dent* **93**, 227-34.
- Simon, B. R., Woo, S. L., Stanley, G. M., Olmstead, S. R., McCarty, M. P., Jemmott, G. F. and Akeson, W. H. (1977) Evaluation of one-, two-, and three-dimensional finite element and experimental models of internal fixation plates. *J Biomech* **10**, 79-86.
- Skalak, R. (1983) Biomechanical considerations in osseointegrated prostheses. *J Prosthet Dent* **49**, 843-8.
- Songa, Y. Y., Chab, J. Y. and Hwang, C. J. (2007) Mechanical characteristics of various orthodontic mini-screw in relation to artificial cortical bone thickness. *Angle Orthod* **77(6)**, 979-985.
- Sowden, D. and Schmitz, J. P. (2002) AO self-drilling and self-tapping screws in rat calvarial bone: an ultrastructural study of the implant interface. *J Oral Maxillofac Surg* **60**, 294-9; discussion 300.
- Sugiura, T., Horiuchi, K., Sugimura, M. and Tsutsumi, S. (2000) Evaluation of threshold stress for bone resorption around screws based on in vivo strain measurement of miniplate. *J Musculoskelet Neuronal Interact* **1**, 165-70.

- Suzuki, E. Y. and Buranastidporn, B. (2005) An adjustable surgical guide for miniscrew placement. *J Clin Orthod* **39**, 588-90.
- Suzuki, E. Y. and Suzuki, B. (2007a) Adjustable traction hooks for anterior torque control with miniscrew anchorage. *J Clin Orthod* **41**, 14-9.
- Suzuki, E. Y. and Suzuki, B. (2007b) A simple three-dimensional guide for safe miniscrew placement. *J Clin Orthod* **41**, 342-6.
- Tada, S., Stegaroiu, R., Kitamura, E., Miyakawa, O. and Kusakari, H. (2003) Influence of implant design and bone quality on stress/strain distribution in bone around implants: a 3-dimensional finite element analysis. *Int J Oral Maxillofac Implants* **18**, 357-68.
- Tseng, Y. C., Hsieh, C. H., Chen, C. H., Shen, Y. S., Huang, I. Y. and Chen, C. M. (2006) The application of mini-implants for orthodontic anchorage. *Int J Oral Maxillofac Surg* **35**, 704-7.
- Ueda, C., Markarian, R. A., Sendyk, C. L. and Lagana, D. C. (2004) Photoelastic analysis of stress distribution on parallel and angled implants after installation of fixed prostheses. *Braz Oral Res* **18**, 45-52.
- Van Oosterwyck, H., Duyck, J., Vander Sloten, J., Van der Perre, G., De Cooman, M., Lievens, S., Puers, R. and Naert, I. (1998) The influence of bone mechanical properties and implant fixation upon bone loading around oral implants. *Clin Oral Implants Res* **9**, 407-18.
- Wehrbein, H., Merz, B. R., Diedrich, P. and Glatzmaier, J. (1996) The use of palatal implants for orthodontic anchorage. Design and clinical application of the orthosystem. *Clin Oral Implants Res* **7**, 410-6.
- Wiechmann, D., Meyer, U. and Buchter, A. (2007) Success rate of mini- and micro-implants used for orthodontic anchorage: a prospective clinical study. *Clin Oral Implants Res* **18**, 263-7.
- Wilmes, B., Rademacher, C., Olthoff, G. and Drescher, D. (2006) Parameters affecting primary stability of orthodontic mini-implants. *J Orofac Orthop* **67**, 162-74.
- Wu, J. C., Huang, J. N., Zhao, S. F., Xu, X. J. and Xie, Z. J. (2006) Radiographic and surgical template for placement of orthodontic microimplants in interradicular areas: a technical note. *Int J Oral Maxillofac Implants* **21**, 629-34.

- Yacoub, N., Ismail, Y. H. and Mao, J. J. (2002) Transmission of bone strain in the craniofacial bones of edentulous human skulls upon dental implant loading. *J Prosthet Dent* **88**, 192-9.
- Yao, C. C., Lee, J. J., Chen, H. Y., Chang, Z. C., Chang, H. F. and Chen, Y. J. (2005) Maxillary molar intrusion with fixed appliances and mini-implant anchorage studied in three dimensions. *Angle Orthod* **75**, 754-60.
- Yun, S. W., Lim, W. H. and Chun, Y. S. (2005) Molar control using indirect miniscrew anchorage. *J Clin Orthod* **39**, 661-4.



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