

## DAFTAR PUSTAKA

- Al Mubarak, S., Abou Rass, M., Alsuwyed A., Al Zoman, K., Al Sohail A., Sobki, S., Tariq, M., Robert A.A., Ciancio, S., Dandona, P., 2010, A new paradigm between mechanical scaling and *root planing* combined with adjunctive chemotherapy for glycated hemoglobin improvement in diabetics. *Int J Diabetes Dev Ctries* 2: 158 – 164
- Almazin, S.M., Dziak, R., Andreana, S., Ciancio, S.G., 2009, The effect of doxycycline hyclate, chlorhexidine gluconate, and minocycline hydrochloride on osteoblastic proliferation and differentiation in vitro. *J Periodontol.* 80(6):999–1005
- Ana, I.D., Matsuya, S., Ishikawa, K., 2010, Engineering of Carbonate Apatite Bone Substitute on Composition –Transformation of Gypsum and Calcium Hydroxide. *Engineering* 2: 344 – 352, doi: 10.4236/eng.2010.25045.
- Ardhani, R., Susilowati, R., Ana, I.D., 2015, Functional recovery of axonal injury induced by gelatin hydrogel film and PRP: an initial study in rats, *JBiSE* 8(3): 160 – 169.
- Ardhani, R., Setyaningsih, S., Hafiyah, O.A., Ana, I.D., 2016, Preparation of Carbonated Apatite Membran as Metronidazole Delivery System for Periodontal Application, *KEM* 696: 250 – 258
- Bara, J.J., Dresing, I., Zeite, S., Anton, M., Daculsi, G., Eglin, D., Nehrbass, D., Stadelmann, V.A., Betts, D.C., Muller, R., ALini, M., Stoddart, M.J., 2016, A doxycycline inducible, adenoviral BMP-2 gene delivery system to bone, *J Tissue Eng Regen Med* 2016, doi: 10.1002/term.2393.
- Bogren, A., Teles, R.P., Torresyap, G., Haffajee, A.D., Socransky, S.S., Wennström, J.L., 2008. Locally delivered doxycycline during supportive periodontal therapy: a 3-year study. *J. Periodontol.* 79: 827–835. doi:10.1902/jop.2008.070515
- Checchi, L., Montevecchi, M., Checchi, V., Zapulla, F., 2009. The relationship between bleeding on probing and subgingival deposits. An endoscopical evaluation. *Open Dent J.* 3: 154 – 160. doi: 10.2174/1874210600903010154
- Christgau, M., 2004, Wound management and postoperative care, *Perio* 2004 1(4): 293-310.
- Cunha, B.A., Baron, J., Cunha, C.B., 2017, Similarities and differences between doxycycline and minocycline: clinical and antimicrobial stewardship considerations, *Eur J Clin Microbiol Infect Dis* 2017: 1 – 6

- Dashti, A., Ready, D., Salih, V., Knowles, J.C., Barralet, J.E., Wilson, M., Donos, N., Nazhat, S.N., 2010, In Vitro antibacterial efficacy of tetracycline hydrochloride adsorbed onto Bio-OssVR bone graft, *J. Biomed. Mater. Res. B* 93B 2: 394 – 400
- Deas, D. E., Moritz, A. J., Sagun, R. S., Gruwell, S. F. and Powell, C. A., 2016, Scaling and root planing vs. conservative surgery in the treatment of chronic periodontitis. *Periodontol 2000* 71: 128-139. doi:10.1111/prd.12114
- Echave, M.C., Saenz del Burgo, L., Pedraz, J.L., Orive, G., 2017. Gelatin as biomaterial for tissue engineering. *Curr Pharm Des.* 2017;23(24):3567-3584. doi: 10.2174/0929867324666170511123101.
- Eickholz, P., Kim, T.S., Schacher, B., 2005, Subgingival topical doxycycline versus mechanical debridement for supportive periodontal therapy: A single blind randomized controlled two-center study, *Am J Dent* 18: 341 – 346
- FDA, 2008, *Highlights of Prescribing Information DORYX® (doxycycline hyclate) Delayed-Release Tablets, 75 mg, 100 mg and 150 mg*, US Patent, USA
- Flemming, T.F., 2006, Locally delivered antimicrobials adjunctive to scaling and root planing provide additional PD reduction and CAL gain in the treatment of chronic periodontitis, *J Evid Base Dent Pract* 6:220-1, doi:10.1016/j.jebdp.2006.06.006
- Garg, S., 2015, Local drug delivery systems as an adjunct to cure periodontitis-the novel dental applicant, *Pharm Methods* 6 (1): 1–8
- Gonzales, S., Cohen, C.L., Galvan, M., Alonaizan, F.A., Rich, S.K., Slots, J., 2015, Gingival bleeding on probing: relationship to change in periodontal pocket depth and effect of sodium hypochlorite oral rinse. *J Periodontal Res* 50(3): 397 – 402. doi: 10.1111/jre.12219.
- Hafiyah, O.A., 2018, Karakteristik Fisik dan Biologis Inkorporasi Doksisisiklin pada Bahan Cangkok Tulang Karbonat Apatit-Gelatin. Yogyakarta: Tesis Fakultas Kedokteran Gigi.
- Herasaki, S., Moztafzadeh, F., Nemati, R., Nezafati, N., 2009, Preparation and Characterization of Calcium Sulfate–Biomimetic Apatite Nanocomposites for Controlled Release of Antibiotics, *J. Biomed. Mater. Res. B* 91(2): 651 – 661.
- Javed, F., BinShabaib, M.H., Alharthi, S.S., Qadri, T., 2017, Role of mechanical curettage with and without adjunct antimicrobial photodynamic therapy in the treatment of peri-implant mucositis in cigarette smokers: A randomized controlled clinical trial, *Photodiagnosis Photodyn Ther.*18: 331–334

- Kaku, M., Yamauchi, M., 2015, Mechano-regulation of Collagen Biosynthesis in Periodontal Ligament, *J Prosthodont Res.* 58(4): 193–207
- Kaner, D., Soudan, M., Zhao, H., Gassmann, G., Shoenhauser A., Friedmann, A., 2017, Early Healing Events after Periodontal Surgery: Observations on Soft Tissue Healing, Microcirculation, and Wound Fluid Cytokine Level, *Int. J. Mol. Sci.* 18(283):1-14
- Kinane, D.F., Stathopoulou, P.G., Papapanou, P.N., 2017, Periodontal diseases. *Nat Rev Dis Primers.* 3: article number 1078, doi: 10.1038/nrdp.2017.38.
- Kogawa, A.C., Salgado, H.R.N., 2012, Doxycycline hyclate: the review of properties, applications and analytical methods, *Int J Life Sci Biotechnol Pharma Res* 2(4): 11 – 25.
- Kolmas, J., Groszyk, E., Kwiatkowska-Róhycka, D. 2014. Substituted Hydroxyapatites with Antibacterial Properties. *BioMed Research International* 2014: 1 – 14. doi: 10.1155/2014/178123
- Komara, I., Rusminah N., Hendiani, I., Sopiadin, S., Utami, N.D., 2018, The effect of Apatite Carbonate Membrane Application on Periodontal Tissue after Scaling and Root Planing Treatment, *IJCRGG* 11(09): 162-169
- Kopytynska-Kaspercyk, A., Dobrzynski, P., Pastusiak, M., Jarzabek, B., Prochwicz, W., 2015, Local delivery system of doxycycline hyclate based on  $\epsilon$ -caprolactone copolymers for periodontitis treatment, *I J Pharm* 06(34), doi:10.1016/j.ijpharm.2015.06.034
- Kour, A., Kumar, A., Puri, K., Khatri, M., Bansal, M., Gupta, G., 2016. Comparative evaluation of probing depth and clinical attachment level using a manual probe and Florida probe. *J Indian Soc Periodontol* 20(3): 299–306. doi: 10.4103/0972-124X.181241
- Kruse, C. R., Nuutila, K. , Lee, C. C., Kiwanuka, E. , Singh, M. , Caterson, E. J., Eriksson, E. and Sørensen, J. A., 2015, The external microenvironment of healing skin wounds. *Wound Rep and Reg* 23: 456-464. doi:10.1111/wrr.12303
- Landi, E., Cellotia, G., Logroscinob, G., Tampieria, A., 2003, Carbonated hydroxyapatite as bone substitute, *J Eur Ceram Soc* 23: 2931–2937
- Landson, A.B., 2002, Calcium: a potential central regulator in wound healing in the skin. *Wound Repair Regen.* 10(5ding):271-85.
- Lemeshow, S., Hosmer Jr. D.W., Klar, J., Lwanga, S.K., 1990, *Adequacy of Sample Size in Health Studies*, John Wiley & Sons Ltd, West Sussex, England.

- Lyons, L.C., Weltman, R.L., Moretti, A.J., Trejo, P.M., 2008, Regeneration of Degree II Furcation Defects With a 4% Doxycycline Hyclate Bioabsorbable Barrier, *J Periodontol* 79(1):72-9
- Matezan- Pérez, P., García-Gargallo, M., Figuero, Bascones-Martínez, A., Sanz, M., Herrera, D., 2013, A systematic review on the effects of local antimicrobials as adjuncts to subgingival debridement, compared with subgingival debridement alone, in the treatment of chronic periodontitis. *J Clin Periodontol* 40(3): 227 – 41. doi: 10.1111/jcpe.12026.
- Meyle, J., Chaple, I., 2015, Molecular aspects of the pathogenesis of periodontitis, 2015, *Periodontology* 2000 (69): 7 – 17
- Moe, A., Golding, A.E., Bement, W.M., 2015, Cell healing: calcium, repair and regeneration, *Semin Cell Dev Biol* 45: 18-23
- Moura, L.A., Ribeiro F.V., Aiello, T.B., De Rezende Due, E.A., Sallum, E.A., Nociti.Jr., F.H., Casati, M.Z., Sallum, A.W., 2015, Characterization of the release profile of doxycycline by PLGA microspheres adjunct to nonsurgical periodontal therapy, *J Biomater Sci Polym Ed* 26(10):573-84, doi: 10.1080/09205063.2015.1045249.
- Narbat, M.K., Hashtjin, M.S., dan Pazouki, M., 2006, Fabrication of porous hydroxyapatite-gelatin scaffolds crosslinked by glutaraldehyde for bone tissue engineering, *IJB* 4(1):54-60
- Newman, M.G., Takei, H.H., Klokkevold, P.R., Carranza, F.A., 2015, *Clinical Periodontology, 12th ed*, WB Saunders Co, Philadelphia.
- Rao, S.K., Setty, S., Acharya, A.B., Thakur, S.L., 2012, Efficacy of locally-delivered doxycycline microspheres in chronic localized periodontitis and on Porphyromonas gingivalis, *J Investig Clin Dent. 2012* 3(2): 128 – 134.
- Reynolds, J.E.F., 2007, *Martindale the Extra Pharmacopoeia, 35th ed*. London. Pharmaceutical Press.
- Pacheamud, T., Chanyaboongsub, N., Setthajindallert, O., 2016, Doxycycline hyclate-loaded bleached shellac in situ forming microparticle for intraperiodontal pocket local delivery, *EJPS* 2016(93): 360 – 370
- Pippi, R., 2017, Post-Surgical Clinical Monitoring of Soft Tissue Wound Healing in Periodontal and Implant Surgery. *Int J Med Sci. 14*(8): 721–728. doi: 10.7150/ijms.19727.
- Polimeni, G., Xiropaidis, A.V., Wikesjo, U.M., 2006, Biology and principles of periodontal wound healing/regeneration, *Periodontology* 2000 41: 30-47

- Prabhu, P., Julius A., Elumalai M, Prabhu, MN., 2014, Wound Healing in Periodontics, Biosci., *Biotech. Res. Asia* 11(2):791-796
- Prakasam, A., Elavarasu, S.S., Natarajan, R.K., 2012, Antibiotics in the management of aggressive periodontitis, *J Pharm Bioallied Sci.* 4(Suppl 2): S252-S255. doi:10.4103/0975-7406.100226.
- Preshaw, P.M., 2015, Detection and diagnosis of periodontal conditions amenable to prevention. *BMC Oral Health* 15(Suppl 1):S5. doi: 10.1186/1472-6831-15-S1-S5.
- Puri, K., Dodward, V., Bhat, K., Puri, N., 2013, Effect of controlled-release Periochip™ on clinical and microbiological parameters in patients of chronic periodontitis, *J Indian Soc Periodontol.* 17(5): 605–611, doi: 10.4103/0972-124X.119299
- Salim, S., Ariani, MD., 2015, In vitro and in vivo evaluation of carbonate apatite-collagen scaffolds with some cytokines for bone tissue engineering, *J Indian Prosthodont Soc* 15: 349-55.
- Santoro, M., Tatarab, A.M., Mikos, A.G., 2014, Gelatin carriers for drug and cell delivery in tissue engineering, *J Control Release.* 28: 210–218. doi:10.1016/j.jconrel.2014.04.014
- Saska, S., Teixeira, L.N., de Castro Raucci, L.M.S., Scarel-Caminaga, R.M., Franchi, L.P., dos Santos, R.A., Santagneli, S.H., Capela M.V., de Oliveira, P.T., Takahashi, C.S., Gaspar, A.M.M., Messadeq, Y., Ribiero, S.J.L., Marchetto, R., 2017, Nanocellulose-collagen-apatite composite associated with osteogenic growth peptide for bone regeneration, *Int. J. Biol. Macromol* 103: 467 – 476
- Scholz, O.A., Wolff, A., Schumacher, A., Giannola, L.I., Campisi, G., Ciach, T., Velten, T., 2008. Drug delivery from the oral cavity: focus on a novel mechatronic delivery device. *Drug Discov. Today.* 13, 247-253. doi:10.1016/j.drudis.2007.10.018
- Shariati, S., Yamini, Y., Esrafil, A., 2009, Carrier mediated hollow fiber liquid phase microextraction combined with HPLC-UV for preconcentration and determination of some tetracycline antibiotics, *J. Chromatogr. B.* 877: 393-400.
- Singh, R.K., Kim, T.H., Patel, K.D., Kim, J.J., Kim, H.W., 2014, Development of biocompatible apatite nanorod-based drug-delivery system with in situ fluorescence imaging capacity, *J. Mater. Chem. B* 2: 2039–2050. doi: 10.1039/c3tb21156h

- Singh, N., Chandel, S., Singh, H., Agarwal, A., Savitha, A.N., 2017, Effect of scaling & root planing on the activity of ALP in GCF & serum of patients with gingivitis, chronic and aggressive periodontitis: A comparative study, *J Oral Biol Craniofac Res.* 7(2): 123 – 126
- Slaughter, B.V., Khurshid, S.S., Fisher, O.Z., Khademhosseini, A., Peppas, N.A., 2009, Hydrogels in regenerative medicine, *Adv. Mater.* 21:3307-29.
- Soeroso, Y., Akase, T., Sunarto, H., Kemal, Y., Salim, R., Octavia, M., Viandita, A., Setiawan J., Bachtiar, B.M., 2017. The risk reduction of recurrent periodontal pathogens of local application minocycline HCl 2% gel, used as an adjunct to scaling and root planing for chronic periodontitis treatment. *Ther Clin Risk Manag* 2017(13): 307–314. doi: 10.2147/TCRM.S130257
- Tada, S., Chowdhury, E.H., Cho, C.S., Akaike, T., 2010, pH-sensitive carbonate apatite as an intracellular protein transporter, *Biomaterials* 31(6):1453-9
- Tamura, T., Yokoya, S., Kamata, Y., Kinoshita, Y., Tabata, Y., Matsumoto, G., 2018, Periodontal regeneration using gelatin hydrogels incorporating basic fibroblast growth factor. *Biomed J Sci & Tech Res* 4(2): 3820 – 4. doi: 10.26717/BJSTR.2018.04.001025
- Trombelli L., Farina R., Silva, C.O., Tatakis, D.N., 2018, Plaque-induced gingivitis: Case definition and diagnostic considerations, *J Clin Per.* 45(20): 22-67
- Yildirimer, L., Seifalian, A.M., 2014, Three-dimensional biomaterial degradation - Material choice, design and extrinsic factor considerations. *Biotechnol Adv.* 32(5):984-99. doi: 10.1016/j.biotechadv.2014.04.014
- Yun, Y. H., Lee, B. K., Park, K., 2015. Controlled Drug Delivery: Historical perspective for the next generation. *Journal of Controlled Release* 219: 2–7. doi:10.1016/j.jconrel.2015.10.005
- Zhang, X., Song, J., Klymov, A., Zhang, Y., de Boer, L., Jansen, J.A., van den Beucken, JJP., Yang, F., Aj-Zaat, S., Leeuwenburgh, SCG., 2018, Monitoring local delivery of vancomycin from gelatin nanospheres in zebrafish larvae, *Int J Nanomedicine* 13: 5377–5394. doi: 10.2147/IJN.S168959
- Zimmermann, H., Hagenfeld D., Diercke K., El-Sayed, N., 2015, Pocket depth and Papillary Bleeding Index and their associations with dental, lifestyle, socioeconomic and blood variables: a cross-sectional, multicenter feasibility study of the German National Cohort, *BMC Oral Health* 15(7): 1-9