DAFTAR PUSTAKA

Abdellatif, B., Mohamed, H., Karim, A., dan Asma.,B., 2014. Radiography Monitoring Of Osteoconduction And Osteoinduction Of Orthotopic Allograft Autoclaved Covered With Propolis, *IJSR*.1(1) : 25-31

Alhasyimi, A. A., Pudyani, P.P., Asmara, W., dan Ana, I.D. 2018. Enhancement of post-orthodontic tooth stability by carbonated hydroxyapatite-incorporated advanced platelet-rich fibrin in rabbits. *Orthodontics and Craniofacial Research,* 21(2) : 112–118. doi: 10.1111/ocr.12224.

Alhasyimi, A. A., Pudyani, P.P., Asmara, W., dan Ana, I.D. 2017. Locally Inhibition of Orthodontic Relapse By Injection Of Carbonated Hydroxy Apatite-Advanced Platelet Rich Fibrin In Rabbit Model. *Key Egineeering Material.* 758 pp 255-263

Ana, I.D., Matsuya, S., dan Ishikawa K., 2010. Engineering of Carbonate Apatite Bone Substitute Based on Composition-Transformation of Gypsum and Calcium Hydroxide, *J. Engineering* ,2 : 344-352

Andrade A.L., Manzi D., dan Domingues R.Z. 2006. Tetracycline and Propolis Incorporation and release by Bioactive Glassy Compound. *J. Non-Cryst. Solids*. 352 : 3502-3507

Ang E.S.M.,Pavlos N.J., Chai L.Y., Qi M., Cheng T.S.,Steer J.H.,Joyce D.A.,Zheng M.H.,dan Xu J.,2009. Caffeic Acid Phethyl Ester an Active Component of Honneybee Propolis Attenautes Osteoclastogenesis And bone Resorption Via The Suppression of RANKL-induce NF-κβ and NFAT Activity, *J. Cell. Physiol*. 221: 642–649

Ardhani, R., Setyaningsih, S., Hafiyyah, O.A., Ana, I.D, 2016, Preparation of Carbonate Apatite Membrane as Metronidazole Delivery System for Periodontal Application, *KEM* 696: 250-258

Baharuddin N.A., Coates D.E., Cullinan M., Seymour G., Duncan W., 2014, Location of RANK, RANKL and Osteoprotegerin during Healing of surgically Created Periodontal defect in Heep, *J Periodint Res.*

Bhavsar A.K., Parween S., Varadhan K.B., dan Prabhuji M.L.V.,2018.Critical Issues in Periodontal Regeneration - A Review, *J Oral Health Dent* . 2: 204

Belibasakis GN dan Bostanci N.,2012. The RANKL-OPG system in clinical periodontolog,. *J Clin Periodontol*, 39 : 239–248. doi: 10.1111/j.1600 051X.2011.01810.x.

Bittencourt, M.L.F., Ribeiro, P.R., Franco R.L.P., Hilhorst, H.W.M., de Castro, R.D., dan Fernandez, L.G., 2015. Metabolite profiling, antioxidant and antibacterial activities of Brazilian propolis: Use of correlation and multivariate analyses to identify potential bioactive compounds. *Food Research International*, 76 : 449–457

Boyce B.F dan Xing L., 2007. Biology of RANK, RANKL and Osteoprotegerin. *Arthritis Research & Therapy* 2007, 9 (Suppl 1)

Carranzza, F. A., Newman, M.G., Takei, H.H., Klokkevoid P.R., 2012. *Carranza's Clinical Periodontologi*. 11 th ed. St Louis Missouri: Saunders Elsevier

Calasans-maia M.D., Melo B.R. Alves A.T.N.N., Resende R.F., Louro R.S., Satoretto S.C., Granjeiro J.M., dan Alves G.G., 2015. Cytocompatibility and Biocompatibility of nanostructure carbonated hydroxyapatite spheres for bone repair.*J Appl Oral Sci* 23(6) :599-608

Crea, A, Deli, G.,Litarru, C., Lujolo, C., Vitroini orgeas., G., dan Tatukis, D. 2013. Open Flap Debridement With and Without Intramarrow Penetration for Intrabony Defect Therapy : A Randomized Clinical Trial, *J Periodontology* pp. 1–20. doi: 10.1902/jop.2013.120753Chen B., Wu W.,Sun W.,Zhang Q.,Tan F., dan Xiao Y., 2014. RANKL Expression in Periodontal disease : Where Does RANKL Come From*?*. *BioMed Research International* Volume 2014, Article ID 731039 http://dx.doi.org/10.1155/2014/731039

Graves D.T., Li J., dan Cochran D.L.,2011.Inflamation and Uncoupling as Mechanism of Periodontal Bone Loss. *J Dent Res*, 90 (2):143-153, 2011

Ghasemi F.S., Eshraghi S.S., Andalibi F., Hooshyar H., Kalantar-Neyestanaki D., Samadi A., and Fatahi-Bafghi, M. 2017. Anti-Bacterial Effect of Propolis Extract in Oil Against Different Bacteria. *Zahedan Journal of Research in Medical Sciences*, 19(3). https://doi.org/10.5812/zjrms.7225

Grenho, L., Barros, J., Ferreira, C., Santos V.R., Monteiro, F.J., Ferraz, M.P., dan Cortes, M.E., 2015, In Vitro Antimicrobial Activity and Biocompatibility of Propolis Containing Nanohydroxyapatite, *Biomed.Mater.*10

Dareka X.E., Markopoulou C.E., Fanourakis G., Tseleni-Balafouta S., dan Vrotsos I.A, 2010. RANKL and OPG mRNA Level After Non- Surgical Periodontal Treatment. *Inflammation*, 33 (3)

Hassan S.H.S., El-Refai M.I., Ghallab N.A., Kasem R.F., dan Shake O.G., 2015, Effect Of Periodontal Surgery Surgery on Oteoprotegrin Levels in Gingival Crevicular Fluid, Saliva, Gingival Tissue of Chronic Periodontitis Patiens. *Disease Marker*. 2015 : 9

Hassumi ,J.S., Muinari, G., Fabris, A.L.S., Jacob, R.G.M.,Goncalves, A., Rossi, A., Freire, A.R., Faverani, L.P., dan Okamoto, R., 2018,. Alveolar bone healing in rats: micro-CT, immunohistochemical and molecular analysis, *J Appl Oral Sci*. http://dx.doi.org/10.1590/1678-7757-2017-0326

Henes, P.J., 2007, Bone Replacement Grafts for the Treatment of Periodontal Intrabony Defects, Oral *Maxillofacial Surg Clin N Am*, 19 : 499–512

Hienz, S.A., Paliwa,S., dan Ivanovski. S.,2015. Mechanisms of Bone Resorption in Periodontitis. *Journal of Immunology Research*,2015, Article ID 615486, 10 pages.

How, K. Y., Song, K. P., dan Chan, K.G. 2016. Porphyromonas gingivalis : An Overview of Periodontopathic Pathogen below the Gum Line', *Front. Microbiol*. 7(February), pp. 1–14. doi: 10.3389/fmicb.2016.00053

Kantarci A.,Hasturk H., dan Van Dyke T.E.,2015. Animal Models for Periodontal Regeneration and Peri-Implant Responses. *Periodontology 2000*, 68 : 66–82

Kohli S.S dan Kohli V.S.200. Role of RANKL-RANK/Osteoprotegeri Moleculer Complex In Bone Remodelling And Its Immunopathologic Implication. *Indian Journal of Endocrinology and Metabolism*. Vol. 15

Kon T., Cho T., Aizawa T., Yamazaki M., Nooh N., Graves D., Gerstesnfeld L.C dan Einhorn T.A. 2001.Expression of Osteoprogenitor, Receptor Activator of NF-κB Ligand (Osteoprotegrin Ligand) and related Proinflamatory Cytokines during Fracture Healing. *J Bone Miner Res*.16 (6)

Kumar, V., 2014, Propolis in Dentistry and Oral Cancer Management, *North American Journal of Medical Sciences*, 6(6): 250-257

Landi E.,Celotti G.,Logroscino G.,Tampieri A.,2003.Carbonat Hydroxyapatite as Bone Substitute. *Journal of the European Ceramic Society* ,23 : 2931–2937

Listari K.M., Ruhadi I., dan Ulfa N. 2019. Ekspresi RANKL Pada Defek Tulang dengan Pemberian Xenograft dibandingkan Xenograft dan PRF. *E-Prodenta Journal Of Dentistry* (3(1) : 216-224

Marsell R., dan Einhorn T.A.,2011. The Biology of Fraktur Healing. *Injury* Vol. 42(6): 551–555. doi:10.1016/j.injury.2011.03.031.

Meimandi-Parizi A., Oryan A., Sayahi E., dan Bigham-Sadegh A.,2018. Propolis Ectract a new Reinforcement Material in Improving Bone Healing: An *In Vivo* Study.*IJS.* Vol.56 94-101

Moghadam S.A., Sarani S., Alijani E., dan Moghadam A.A. 2019. The Effect of Phase I periodontal treatment on the salivary RANKL/OPG ratio in severe chronic Periodontitis. *Clin Cosmet Investig Den* 11 251-257

Natarajan, K., Singh, S., Burke, T.R., Grunberger, D., Aggarwal, B.B., 1996, Caffeic Acid Phenetyl Ester Is A Potent and Specific Inhibitor of Activation of Nuclear Transcription Factor NF-κB, *Proc. Natl. Acad. Sci.*, 93(17): 9090-9095

O'Brien C.A.,2010. Control of RANKL Gene Expression.*Bone.*46 (4) : 911-919

Oley M.C., Islam A.A., Hatta M., Hardjo M., Nirmalasari L., Rendy L., Ana I.D., Bachtiar I. 2018. Effect of Platelet-rich plasma and Carbonated hydroxyapatite combination on cranial defect bone regeneration : an Animal study. *Wound Medicine* 21 : 12-15

Owen T.A., Aronow M., Shalhoub V., Barone L.M., Wilming L., Tassinari M.S., Kennedy M.B., Pockwinse S., Lian J.B., dan Stein GS.,1990. Progressive Development of the Rat Osteoblast Phenotype in Vitro : Reciprocal Relationdhip in Expression of Genes Associated With Osteoblast Proliferation and Differentiation durung Formation of The Bone Extracellular Matrix. *J Cell Physiol*, 143 : 420-430

Oz, H.S., dan Puleo, D.A., 2011, Animal Models for Periodontal Disease, *Journal of Biomedicine and Biotechnology*,2011, Article ID 754857, 8 pages doi:10.1155/2011/754857

Parent, M., Baradri, H., Champion, E., Damia, C., dan Viana-Trecant, M., 2017, Design of calcium phosphate ceramics for drug delivery applications in bone diseases: A review of the parameters affecting the loading and release of the therapeutic substance, *J Con Rel* 252:1-17

Patriati, A., Ardhani, R., Pranowo, H. D., Putra, E.G.R., dan Ana, I.D. 2016 .The Effect of Freeze-Thaw Treatment to the Properties Of Gelatine-Carbonated Hydroxyapatote Membran for Nerve Regeneration Scaffold.*Key Engineering Materials*, 696 :129-144, doi: 10.4028/www.scientific.net/KEM 696.129

Pileggi R., Antony K.,Johnson K., Zuo J., dan Holliday L.S.,2009. Propolis Inhibit Osteoclast Maturation. *Dental Traumatology.*25: 584–588; doi: 10.1111/j.1600-9657.2009.00821.x

Prahasanti C., Subrata L.H., Saskianti T., Suardita K., Ernawati D.S. 2019. Combined Hydroxyapatite Scaffold and Stem Cell From Human Exfoliated Deciduous Teeth Modulating Alveolar Bone Regeneration via Regulating Receptor Activator of Neclear Factor-Kb and Oteoprotegerin system, *Iran J Med Sci*, 44(5)

Somsanith, N., Kim, Y., Jang, Y., Lee, Y., Yi, H., Jang, J., Kim, K., Bae T., dan Lee, M., 2018**.** Enhancing of Osseointegration with Propolis-Loaded TiO 2 Nanotubes in Rat Mandible for Dental Implants. *Materials* 11(61); doi:10.3390/ma11010061

Sukumar, S., dan Drizhal, I., 2008, Bone Grafts in Periodontal Therapy, *Acta Medica*, 51(4): 203-207

Suryono, Hasmy, N.S., Pertiwi, T.L., Benyamin, B., dan Ismail, A., 2017, Propolis 10%-Gel as A Topical Drug Candidate on Gingivitis, *IJMP*, 5(1): 12-17

Tang X., Han J., Meng H., Zhao Y., Wang H., Liu J., Lin L., Zhang D., Li C., Ma C. 2016. Downregulation of RANKL and RANKL/osteoprotegerin ratio in human periodontal ligament cells during their osteogenic differentiation. *J Periodont Res* 51: 125–132

Torre E., 2017. Molecular Signaling Mechanism behind Polyphenol-induced Bone anabolism. *Phytochem Rev*. 16 : 1183-1226

Ucan, M.C., Koparal, M., Agacayak, S., Gunay, A., Ozgoz, M., Atilgan, S., dan Yaman, F., 2013. Influence of Caffeic Acid Phenethyl Ester on Bone Healing in Rat Model, *IJSR*, 41(5): 1648-1654

Yuanita, T., Zubaidah, N., dan Kunarti, S.,2018. Expression of Osteoprotegrin and Osteoclast Level in Chronic Apical Periodontitis Induced with East Java Propolis Extract. *IEJ.*13(1): 42-6. Doi: 10.22037/iej.v12i4.18781.

Yordanov Y., 2019. Caffeic Acid Phenethyl Ester (CAPE) : Pharmacodynamics and potential for therapeutic application. *PharmaciaI* 66(3) 107-114

Zenobia C.,Hasturk H.,Nguyen D.,Van Dyke, T.E., Kantarci A., Derveu R.P., 2014. *Porphyromonas gingivalis* Lipid A Phosphatase Activity Is Critical for Colonization and Icreasing the Commensal Load in the Rabbit Ligature Model.*IAIJ* Vol. 82 p650-659

Zhu H.,Zhanf S., dan Ahn C.,2017.Sample Size Consideration for Split-Mouth Design. *Stat Methods Med Res*, 26(6):2543–2551. doi:10.1177/0962280215601137.