# DAFTAR PUSTAKA

Adha, N., Ervina, I., Agusnar, H., (2017) The Effectiveness Of Metronidazole Gel Based Chitosan Inhibits The Growth Of Bacteria *Aggregatibacter Actinomycetemcomitans, Porphyromonas Gingivalis, Fusobacterium Nucleatum* (*In Vitro*). *In J Applied Dental*, 3(2): 33-37.

Alibasyah, Z.M., Andayani, R., dan Farhana, A., (2016) Potensi Antibakteri Ekstrak Jahe (*Zingiber officinale Roscoe*) Terhadap *Porphyromonas gingivalis* Secara *In Vitro*. *J Syiah Kuala Dentistry Society*. 1(2): 147–15.

Almuhayawi, M.S., (2020) Propolis as A Novel Antibacterial Agent. *Saudi J Bio Sci*. 27: 3079-3086.

Andriani, I. dan Chairunnisa, F.A., (2019) Periodontitis Kronis dan Penatalaksanaan Kasus dengan Kuretase, *Insisiva Dental J*, 8(1): 25-30.

Arbab, S., Ullah, H., Weiwei, W., Wei, X., Ahmad, S.U., Wu, L., Zhang, J., (2021) Comparative study of antimicrobial action of *aloe vera* and antibiotics against different bacterial isolates from skin infection. *Vet Med Sci*. 7: 2061-2067.

Armis, A., Haniastuti, T. dan Susilowati, H., (2019) The effect of bitter gourd (*Momordica charantia*) ethanolic extract on inflammatory infiltrates and NF-kB activation in periodontitis. *Majalah Kedokteran Gigi Indonesia*. 5(1): 6-14.

Aslani, A., Zolfaghari, B., dan Davoodvandi, F., (2016) Design, Formulation and Evaluation of an Oral Gel from *Punica Granatum* Flower Extract for the Treatment of Recurrent Aphthous Stomatitis. *Advanced Pharmaceutical Bulletin*. 6(3): 391–398.

Brookes, Z.L.S., Bescos, R., Belfield, L.A., Ali, K., dan Roberts, A., (2020) Current uses of chlorhexidine for management of oral disease: a narrative review. *J Dent*. 103(41): 1-9.

Caton, J.G., Armitage, G., Berglundh, T., Chapple, L.C., Jepsen, S., Kornman, K.S., Mealey, B.L., Papapanou, P.N., Sanz, M., dan Tonetti, M.S., (2017) A new classification scheme for periodontal and peri-implant diseases and conditions – Introduction and key changes from the 1999 classification. *J Periodontology*. 89(1) : 1-8.

Chan, E.W.C., Lim, Y.Y., (2007) Antioxidant and antibacterial activity of leaves of Etlingera species (*Zingiberaceae*) in Peninsular Malaysia. *Food Chemistry*. 104(4): 1586-1593.

Clais, S., Boulet, G., dan Kerstens, M., (2014) Importance of biofilm formation and dipeptidyl peptidase IV for the pathogenicity of clinical *Porphyromonas gingivalis* isolates. *Pathogens and Disease*.

Davidovich, N.V., Galieva, A.S., Opravin, A.S., Gagarina, T.Y., Malygina, O.G., Leikhter, S.N., Bashilova, E.N., dan Bazhukova, T.A, (2022) Correlation of

marker periodontopathogenic bacteria with the immune component sCD14 secretion level in inflammatory periodontal disease, *Klin Lab Diagn.* 67(8): 471-475.

Diaz, L., Hoare, A., Soto, C., Bugeno, I., Silva, N., Dutzan, N., Venegas, D., Salinas, D., Perez-Donoso, J.M., Gamonal, J., dan Bravo, D., (2015) *Anaerobe*. 33: 25-32.

Diyatri, I., Juliastuti, W. S., Ridwan, R. D., Ananda, G. C., Wakita, F. A., Juliana, N. V., Khansa, S. P., Pratiwi, R. T., dan Putri, C. R., (2023) Antibacterial effect of a gingival patch containing nan-emulsion of dragon fruit peel extract on *Porphromonas gingivalis*, *Aggregtibacter actinomycetemcomitans*, and *Fusobacterium nucelatum* assessed in vitro, *J Biology and Craniofacial Research*, 13: 386-391.

Dwiyanti, W., Ibrahim, M. and Trimulyono, G., (2014) Pengaruh Ekstrak Daun Kenikir (Cosmos Caudatus) Terhadap Pertumbuhan Bakteri Bacillus Cereus Secara In Vitro. *Lentera Bio*. 3(1): 1–5.

Fatimatuzzahro, N., Chriestedy Prasetya, R., & Puri, S., (2021) Potensi ekstrak sutra laba-laba *Argiope modesta* 5% sebagai bahan anti inflamasi pada luka gingiva tikus Wistar. *Padjadjaran J Dental Researchers and Students*. 5(2), 133–139.

Gambin, D.J., Vitali, F.C., Carli, J.P., Mazzon, R.R., Gomes, B.P., Duque, T.M., dan Trentin, M.S., (2021) Prevalence of Red and Orange Microbial Complexes in Endodontic-Periodontal Lesions: a Systematic Review and Meta-Analysis. *Clin Oral Investig.* 25(12): 6533-6546.

Hariningsih, Y., (2019) Pengaruh Variasi Konsentrasi Gel Na-CMC 2% Terhadap Stabilitas Fisik Gel Ekstrak Pelepah Pisang Ambon (*Musa paradisiaca L.*). *Parapemikir Jurnal Ilmiah Farmasi*. 8(2): 46–51.

Henderson, B., Curtis, M., dan Seymor, R., (2009) *Periodontal Medicine and System Biology*. New Delhi: John Willey and Sons.

How, K.Y., Keang, P.S., dan Kok, G.C., (2016) *Porphyromonas gingivalis*: An Overview of Periodontopathic Pathogen below Gum Line. *Front. Microbiol*. 7: 1-14.

Indarto, Narulita, W., Sri Anggoro, B. and Novitasari, A., (2019) Aktivitas Antibakteri Ekstrak Daun Binahong Terhadap Propionibacterium Acnes. *Biosfer*. 10(1): 67–78.

Kato, H., Taguchi, Y., Tominaga, K., Umeda, M., dan Tanaka, A., (2014) *Porphyromonas gingivalis* LPS Inhibits Osteoblastic Differentiation and Promotes Pro-inflammatory Cytokine Production in Human Periodontal Ligament Stem Cells. *Arch. Oral Biol*. 59(2): 167-175.

Kedzia, B., Kedzia, H., dan Pinocembryna, E., (2017) Pinocembrin-flavonoid component of domestic propolis with delaying effect of the development of Alzheimer's disease. *Borgis.* 18(3): 223-228.

Kementerian Kesehatan Republik Indonesia, (2018) *Laporan Nasional Riset Kesehatan Dasar (Riskesdas) Indonesia tahun 2018, Riset Kesehatan Dasar 2018*, Jakarta: Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan, hal. 204.

Kylma, A.K., Sorsa, T., Jouhi, L., Mustonen, H.K., Mohamed, H., Randen-Brady, R., Makitie, A., Atula, T., Hagstrom, J., Haglund, C., (2022) Prognostic Role of *Porphyromonas gingivalis* Gingipain Rgp and Matrix Metalloproteinase 9 in Oropharyngeal Squamous Cell Carcinoma. *Anticancer Research*. 42: 5415-5430.

Konaté, K., Mavoungou, J.F., Lepengué, A.N., (2012) Antibacterial activity against β-lactamase producing Methicillin and Ampicillin-resistants *Staphylococcus aureus*: Fractional Inhibitory Concentration Index (FICI) determination. *Ann. Clin. Microbiol. Antimicrob.* 11: 18.

Lisbona-Gonzales, M. J., Munoz-Soto, E., Lisbona-Gonzales, C., Vallecillo-Rivas, M., Diaz-Castro, J., dan Fernandez-Moreno, J., (2021) Effect of Propolis Paste and Mouthwash Formulation on Healing after Teeth Extraction in Periodontal Disease. *MDPI*. 10(8): 1-12.

Liu, R., Memarzadeh, K., Chang, B., Zhang, Y., Ma, Z., Allaker, R.P., dan Yang, K., (2016) Antibacterial Effect of Copper-Bearing Titanium Alloy (Ti-Cu) Against *Streptococcus mutans* and *Porphyromonas gingivalis*. *Sci. Rep.* 6(1): 1-10.

Megawati, Roosevelt, A., dan Akhir, L.O., (2019) Formulasi dan Uji Stabilitas Fisik Sediaan Gel Ekstrak Kulit Buah Ranbutan (*Nephelium lappaceum L.*) Sebagai Obat Sariawan Menggunakan Variasi Konsentrasi Basis Carbopol, *J Farmasi Sandi Karsa*, 5(1): 5-10.

Mohammad, C.A., Ali, K.M., Al-rawi, R.A., & Gul, S.S., (2022). Effects of Curcumin and Tetracycline Gel on Experimental Induced Periodontitis as an Anti-Inflammatory, Osteogenesis Promoter and Enhanced Bone Density through Altered Iron Levels: Histopathological Study. *Antibiotics*, 11(4) : 521.

Mohammed, E.A.H., Peng, Y., Wang, Z., Qiang, X., Zhao, Q., (2022) Synthesis, Antiviral, and Antibacterial Activity of the Glycyrrhizic Acid and Glycyrrhetinic Acid Derivative. *Russian J Bio Chemist*. 48(5): 906-918.

Mohanty, R., Asopa, S.J. Joseph, M.D., Singh, B., Rajguru, J.P., Saidath, K., dan Shar, U., (2019) Red complex : Polymicrobial conglomerate in oral flora : A review. *J Family Medicine and Primary Care*. 8(11): 3480-3486.

Monalisa, Erly dan Fransiska, A., (2021) Uji Daya Hambat Ekstrak Daun Salam (*Syzygium polyanthum wight*) Terhadap Pertumbuhan Bakteri *Porphyromonas Gingivalis* Secara *In Vitro*. *Andalas Dent J*. 9(1): 19-28.

Mysak, J., Podzimek, S., Sommerova, P., Lyuya-Mi, Y., Bartova, J., Janatova, T., Procazkova, J., dan Duskova, J., (2014) *Porphyromonas gingivalis*: Major periodontopathic pathogen overview. *J Immunol Res*.1-8.

Nazir, M.A., (2017) Prevalence of periodontal disease, its association with systemic diseases and prevention. *In J Health Sciences*. 11(2): 72-80.

Newman, M.G., Takei, H.H., Klokkevold, P.R., dan Carranza, F.A., (2015) *Carranza's Clinical Periodontology*. Missouri: Saunders.

Paliling, A., Posangi, J., Anindita, P.S., (2016) Uji Daya Hambat Ekstrak Bunga Cengkeh (*Syzygium Aromaticum*) terhadap Bakteri *Porphyromonas gingivalis*. *J e-GiGi*. 4(2): 229-234.

Pimenta, H.C., Violante, I.M., Music, C.R., Borges, A.H., dan Aranha, A.M., (2015) In Vitro Effectiveness of Brazilian Brown Propolis Against *Enterococcus faecalis. Braz. Oral Res.* 29: 1-6.

Przybylek, I. dan Karpinski, T.M., (2019) Antibacterial Properties of Propolis. *Molecules*. 24: 1-17.

Samaranayake, L., (2018) *Essential Microbiology for Dentistry. 5th Ed*. Edinburgh: Elsevier. pp. 59-62, 96, 158, 163-164, 270, 291-292.

Sforcin, J.M., (2016) Biological Properties and Therapeutic Applications of Propolis. *Phytother. Res.* 30: 894-905.

Siddharth, S., Vittal, R.R., (2018) Evaluation of Antimicrobial, Enzyme Inhibitory, Antioxidant and Cytotoxic Activities of Partially Purified Volatile Metabolites of Marine Streptomyces sp.S2A, *Microorganisms*, 6: 1-13

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

Tonetti M.Sl., Jepsen, S., Jin, L., dan Otomo-Corgel, J., (2017) Impact of the Global Burden of Periodontal Diseases on Health, Nutrition and Wellbeing of Mankind: A Call for Global Action. *J Clinical Periodontology*. 44(5): 456-462.

Utomo, S.B., Fujiyanti, M., Lestari, W.P., dan Mulyani, S. (2018) Uji Aktivitas Antibakteri Senyawa Hexadecyltrimethylammonium-Bromide Terhadap Bakteri *Staphylococcus aureus* dan *Escherichia coli*. *JKPK (Jurnal Kimia dan Pendidikan Kimia)*. 3(3): 201–209.

Oliveira, A.V., Ferreira, A.L., Nunes, S., Dandlen, S.A., Miguel, Leonor Faleiro, M., , P.J., , Nunes, S., Anahi Dandlen, S., da Graça Miguel, D.G.D.G., Faleiro, M.L. (2017) Antibacterial activity of propolis extracts from the south of Portugal. *Pakistan J Pharm Sci*. 30(1): 1-9.

Widyaningrum, N.R., Novitasari, M., dan Puspitasary, K., (2019) Perbedaan Variasi Formula Basis CMC Na Terhadap Sifat Fisik Gel Ekstrak Etanol Kulit Kacang Tanah (*Arachis hypogaea L.*). *Avicenna J Health Research*. 2(2): 121–134.

Wulandari, D., Kurniawati, D., Ritonga, H., (2013) Isolasi dan Uji Aktivitas Antimikroba Ekstrak Etanol Propolis *Trigona spp*. *J Prog Kim Si*. 3(2): 74-80.

Yahya, S. (2013) *Spektrofotometri UV-Vis*. Jakarta: Erlangga. pp. 25.