

## DAFTAR PUSTAKA

- Adam, S. A. Pengaruh ekstrak daun andong (*Cordyline fruticosa*) dalam menghambat pertumbuhan bakteri *Aggregatibacter actinomycetemcomitans* secara in vitro. *Skripsi*. Malang: Universitas Brawijaya. 2018.
- Akhavan, B. J., Khanna, N. R., Vijhani, P. 2022. Amoxicillin. In: *Statpearls*. [Internet]. Available at <https://www.ncbi.nlm.nih.gov/books/NBK482250/>. Diakses pada 13 Oktober 2023.
- Alibasyah, Z. M., Ningsih, D. S., Sinda, M. P. 2020. Aktivitas antibakteri ekstrak etanol 70% daun biduri (*Calotropis gigantea*) terhadap *Aggregatibacter actinomycetemcomitans* ATCC 29523. *Cakradonya Dental Journal*. 12(1): pp. 56-63.
- Amankwah, S., Abdella, K., Kassa, T. 2021. Bacterial biofilm destruction: A focused review on the recent use of phage-based strategies with other antibiofilm agents. *Nanotechnology, Science, and Applications*. 14(1): pp. 161-177.
- Anggita, D. 2022. Mekanisme kerja antibiotik. *UMI Medical Journal*. 7(1): pp.46-58.
- Anggraini, W., Nisa, S. C., Ramadhani, R. D. A., Ma'arif, B. Z.A. 2019. Aktivitas antibakteri ekstrak etanol 96% buah blewah (*Cucumis melo L.*) terhadap pertumbuhan bakteri *Escherichia coli*. *Pharmaceutical Journal of Indonesia*. 5(1): pp. 61-66.
- Araujo, C. F., Andere, N. M. R. B., Santos, N. C.C D., Mathias-Santamaria, I. F., Reis, A. A., Oliveira, L. D., Jardini, M. A. N., Casarin, R. C. V., Santamaria, M. P. 2019. Two different antibiotics protocols as adjuncts to one-stage full-mouth ultrasonic debridement to treat generalized aggressive periodontitis: A pilot randomized controlled clinical trial. *Journal of periodontology*. pp. 1-10.
- Ardila, C. M., dan Gracia, J. A. B. 2020. Antimicrobial resistance of *Aggregatibacter actinomycetemcomitans*, *Porphyromonas gingivalis*, and *Tannerella forsythia* in periodontitis patients. *Journal of Global Antimicrobial Resistance*. 22(1): pp. 215-218.
- Badaring, D. R., Sari, S. P. M., Nurhabiba, S., Wulan, W., Lembang, S. A. R. 2020. Uji ekstrak daun maja (*Aegle marmelos L.*) terhadap pertumbuhan bakteri *Escherichia coli* dan *Staphylococcus aureus*. *Indonesian Journal of Fundamental Sciences*. 6(1): pp. 16-26.
- Bao, K., Bostanci, N., Thurnheer, T., Grossmann, J., Wolski, W. E., Thay, B., Belibasakis, G. N., Oscarsson, J. 2018. *Aggregatibacter actinomycetemcomitans* H-NS promotes biofilm formation and alters protein

- dynamics of other species within a polymicrobial oral biofilm. *Npj Biofilms and Microbiomes.* 4(1): pp. 1–11.
- Bathla, S. 2021. *Textbook of Periodontics.* 2<sup>st</sup> ed. Jaypee Brothers Medical Publisher (P) Ltd. New Delhi.
- Belibasakis, G. N., Maula, T., Bao, K., Lindholm, M., Bostanci, N., Oscarsson, J., Ihalin, R., dan Johansson, A. (2019). Virulence and pathogenicity properties of *Aggregatibacter actinomycetemcomitans*. *Pathogens.* 8(4): pp. 1-23.
- Belibasakis, G. N., Belstrom, D., Eick, S., Gursoy, U. K., Johansson, A., Kononen, E. 2022. Periodontal microbiology and microbial etiology of periodontal diseases: Historical concepts and contemporary perspectives. *Journal Periodontology 2000.*
- Benza, R., dan Pareja, M. (2017). Diagnosis and treatment of aggressive periodontitis. *Odontoestomatologia Journal.* 19(30): pp. 29–38.
- Bernardi, S., Anderson, A., Macchiarelli, G., Hellwig, E., Cieplik, F., Vach, K., Al-Ahmad, A. 2021. Subinhibitory antibiotic concentrations enhance biofilm formation of clinical *Enterococcus faecalis* isolates. *Antibiotics.* 10(847): pp. 1-18.
- Besan, E. J., Rahmawati, I., Saptarini, O. 2023. Aktivitas antibiofilm ekstrak dan fraksi-fraksi bunga telang (*Clitoria ternatea* L.) terhadap *Staphylococcus aureus*. *Pharmaceutical Journal of Indonesia.* 20(01): pp. 1-11.
- Boehm, T. K., dan Chui, S. 2020. *Guide to Periodontal Treatment Solutions for General Dentistry.* Thieme Medical Publisher. New York.
- Caton, J. G., Armitage, G., Berglundh, T., Chapple, I. L. C., Jepsen, S., Kornman, K. S., Mealey, B. L., Papapanou, P. N., Sanz, M., dan Tonetti, M. S. (2018). A new classification scheme for periodontal and peri-implant diseases and conditions – Introduction and key changes from the 1999 classification. *Journal of Periodontology.* 89(S1): pp. S1–S8.
- Clinical and Laboratory Standards Institute. 2020. *Performance Standards for Antimicrobial Susceptibility Testing.* USA. CLSI Supplement M100.
- Dabija-Wolter, G., Al-Zubaydi, S. S., Mohammed, M. M. A., Bakken, V., Bolstad, A. I. 2018. The effect of metronidazole plus amoxicillin or metronidazole plus penicillin v on periodontal pathogens in an in vitro biofilm model. *Clinical and Experimental Dental Research.* 4(1): pp. 6-12.
- Dingsdag, S. A., dan Hunter, N. 2018. Metronidazole: An update on metabolism strucutre-cytotoxicity and resistance mechanisms. *Journal of Antimicrobial Chemotherapy.* 73(2): pp. 265-279.
- Fadhila, D., dan Etika, S. B. 2023. Skrining fitokimia ekstrak metanol daun cemara sumatera (*Taxus sumatrana*). *Jurnal Pendidikan Kimia Universitas*

- Riau. 8(1): pp. 66-73.
- Federika, A. S., Rukmo, M., Setyabudi. 2020. Antibiofilm activity of flavonoid mangosteen pericarp extract against *Porphyromonas gingivalis* bacteria. *Conservative Dentistry Journal*. 10(1): pp. 27-30.
- Hallare, J., dan Gerriets, V. 2023. Half Life. In: *Statpearls*. [Internet]. Available at <https://www.ncbi.nlm.nih.gov/books/NBK554498/>. Diakses pada 19 Mei 2024.
- Hamdon, S. M., dan Rahman, A. G. Y. 2019. Biofilm formation by *Aggregatibacter actinomycetemcomitans*. International Journal of Enhanced Research in Science, Technology, & Engineering. 6(12): pp. 6-12.
- Hamzah, H., Hertiani, T., Pratiwi, S. U. T., Nuryastuti, T. 2019. The inhibiton activity of tannin on the formation of mono-species and polymicrobial biofilm *Escherichia coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Candida albicans*. Traditional Medicine Journal. 24(2): pp. 110-118.
- Hamzah, H., Hertiani, T., Pratiwi, S. U. T., Nuryastuti, T. 2021. Efek saponin terhadap penghambatan planktonik dan mono-spesies biofilm *Candida albicans* ATCC 10231 pada fase pertengahan, pematangan, dan degradasi. *Majalah Farmaseutik*. 17(2): pp. 198-205.
- Helmy, Y. A., Abdelaziz, K. T., Hawwas, H. A. E. H., Ghosh, S., AlKafaas, S. S., Moawad, M. M. M., Saied, E. M., Kassem, I. I., Mawad, A. M. M. 2023. Antimicrobial resistance and recent alternatives to antibiotics for the control of bacterial pathogens with an emphasis on foodborne pathogens. *Antibiotics*. 12(2): pp. 274.
- Ibrahim, S. M., Al-Mizraqchi, A. S., Haider, J. 2023. Metronidazol potentiation by panax ginseng and *Sympytum officinale*: A new strategy for *P. gingivalis* infection control. *Antibiotics*. 12(8): pp. 1208-1288.
- Ichsyani, M., Widodo, H. B., Naufalin, R., Dewi, A. T., Rimawati, A., Putri, D. A., Lokasari, N. D. 2021. Pengaruh ekstrak kecombrang (*Etlingera elatior*) terhadap degradasi biofilm *Aggregatibacter actinomycetemcomitans* penyebab periodontitis agresif. *Mandala of Health*. 13(2): pp. 95-101.
- Irfan, M., Rudhanton, Diah, Septina, F. 2022. Ekstrak teh putih sebagai penghambat biofilm *Aggregatibacter actinomycetemcomitans* (*in vitro*). *E-Prodenta Jorunal of Dentistry*. 6(1): pp. 534-538.
- Irmawan, M. F., Nur, A., Nuryanti, A. Pengaruh konsentrasi ekstrak etanol daun cincau hijau (*Cyclea barbata* Miers) terhadap persentase penghambatan pembentukan biofilm bakteri *Aggregatibacter actinomycetemcomitans* (kajian *in vitro*). *Skripsi*. Yogyakarta: Universitas Gajah Mada: 2019.
- Innovotech. 2019. *Procedural Manual For High-Throughput Antimicrobial Susceptibility Testing of Biofilms*. Innovotech. Kanada. pp.1-21.

- Jain, A., dan Parihar, D. K. 2018. Antibacterial, biofilm dispersal and antibiofilm potential of alkaloids and flavonoids of *Curcuma*. *Biocatalysis and Agricultural Biotechnology*. 16(1): pp. 677-682.
- Jiang, Y., Geng, M., dan Bai, L. (2020). Targeting biofilms therapy: Current research strategies and development hurdles. *Microorganisms*. 8(8): pp. 1-34.
- Joshipura, V., Yadalam, U., dan Brahmavar, B. (2015). Aggressive periodontitis: a review. *Journal of the International Clinical Dental Research Organization*, 7(1): pp. 11-17.
- Kementerian Kesehatan RI. 2018. Riset Kesehatan Dasar (Riskesdas ) Tahun 2018. Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan. Jakarta. pp. 179-216.
- Kining, E., Falah, S., Nurhidayat, N. 2016. The In vitro antibiofilm activity of water leaf extract of papaya (*Carica papaya* L.) against *Pseudomonas aeruginosa*. *Current Biochemistry*. 2(3): pp. 150-163.
- Kriswandini, I. L., Tantiana, Berniyati, T., dan Ning Tyas, P. N. B. (2020). Detection of biofilm proteins from *Aggregatibacter actinomycetemcomitans* induced by glucose, lactose, soy protein, and iron along with protein density analysis. *Malaysian Journal of Medicine and Health Sciences*. 16(S4): pp. 12-16.
- Kuttinath, S., Haritha, KH., Rammohan, R. 2019. Phytochemical screening, antioxidant, antimicrobial, and antibiofilm activity of *Sauvagesia androgynus* leaf extracts. *Asian Journal of Pharmaceutical and Clinical Research*. 12(4): pp. 245-250.
- Kurniawan, A., dan Asriani, E. (2020). Review: *quorum sensing* bakteri dan peranannya pada perubahan nilai ph di kolong pascatambang timah dengan umur berbeda. *Jurnal Ilmu Lingkungan*. 18(3): pp. 602–609.
- Kusumaningsih, T., Sidarningsih., Putra, A. A., Aljunaid, M. 2021. Antibacterial differences effect between purple leaves (*Gratophyllum pincatum* (L) Griff.) 70% and 96% ethanol extract against *Aggregatibacter actinomycetemcomitans* Bacteria. *Journal of International Dental and Medical Research*. 14(2): pp. 519-524.
- Llama-Palacios, A., Potupa, O., Carmen, M. 2017. *Aggregatibacter actinomycetemcomitans* growth in biofilm versus planktonic state differential expression of proteins. *Journal of Proteome research*. 16(9): pp. 1-38.
- Lahiri, D., Dash, S., Dutta, R., Nag, M. 2019. Elucidating effect of anti-biofilm activity of bioactive compound extracted from plant. *Journal of Biosciences*. 4(52): pp. 1-19.

- Mahuli, S. A., Zorair, A. M., Jafer, M. A., Sultan, A., Sarode, G., Baeshen, H. A., Raj, A. T., Sarode, S., Patil, S. 2020. Antibiotics for periodontal infection: biological and clinical perspective. *The Journal of Contemporary Dental Practise.* 21(4): pp. 373-375.
- Malik, R., Changela, R., Krishan, P., Gugnani, S., Bali, D. 2015. Virulence factors of *Aggregatibacter actinomycetemcomitans* — A status update. *Journal of the International Clinical Dental Research Organization.* 7(2): pp. 137-145.
- Mardiatun, S. K., dan Azzahra, F. 2022. Penetapan rendemen dan kandungan kimia ekstrak daun katuk (*Sauvopus androgynus* (L.) Merr) berdasarkan perbedaan metode pengeringan. *Sasambo Journal of Pharmacy.* 3(2): pp. 83-90.
- Mariam, F., Firdaus, I. W. A. K., Panjaitan, F. U. A. 2020. saponin. *Dentin Jurnal Kedokteran Gigi.* 6(2): pp. 43-48.
- Mendes, C. L., Assis, P. D., Annibal, H., oliveira, L. J. R., Albuquerque, M. S., Soares, M. L., Lago, M. C., Braz, R. 2020. Metronidazol and amoxicillin association in aggressive periodontitis: A systematic review. *Saudi Dental Journal.* 32(1): pp. 269-25.
- Miao, W., Sheng, L., Yang, T., Wu, G., Zhang, M., Sun, J., Ainiwaer, A. 2020. The impact of flavonoids-rich *Ziziphus jujuba* Mill. Extract on *Staphylococcus aureus* biofilm formation. *BMC Complementary Medicine and Therapies.* 20(187): pp. 1-8.
- Miller, T., Waturangi, D. E., Yogiara. 2022. Antibiofilm properties of bioactive compounds from *Actinomycetes* against foodborne and fish pathogens. *Journal of Scientific Report.* 12(1): pp. 1-14.
- Missoum, A. 2019. Aggressive periodontitis etiology, pathophysiology, and treatment: a recent review. *International Journal of Experimental Dental Science.* 8(1): pp. 11-22.
- Nabila, H. L., Sari, D. N. I., Satrio, R., Choironi, N. A., Triani, M., Prihastuti, C. C., Andini, R. F. 2022. Pengaruh ekstrak etanol tangkai *Begonia multangula Blume* terhadap biofilm *Aggregatibacter actinomycetemcomitans* ATCC 6514. *Jurnal Farmasi Indonesia.* 19(2): pp. 264-279.
- Newman, M. G., Takei, H. H., Klokkevold, P. R., Carranza, F. A. 2019. *Newman and Carranza's Clinical Periodontology.* 13<sup>th</sup> Ed. Elsevier. Philadelphia. Pp. 351-359.
- Newman, M. G., Elangovan, S., Dragan, I. F., Karan,, A. K. 2022. *Newman and Carranza's Essential of Clinical Periodontology.* 13<sup>th</sup> Ed. Elsevier. Philadelphia.
- Nikmah, I. S. Uji antibakteri, formulasi, dan uji fisik ekstrak terpurifikasi daun katuk (*Sauropus androgynus*) terhadap *Pseudomonas aeruginosa* ATCC

2753. Skripsi. Universitas Islam Sultan Agung. 2022. (Dipublikasikan).
- Nisa, M. A., Oktiani, B. W., Putri, D. K. T. 2022. Efektivitas antibakteri ekstrak daun rambai (*Sonneratia caseolaris*) terhadap pertumbuhan *Aggregatibacter actinomycetemcomitans*. *Dentin (Jurnal Kedokteran Gigi)*. VI(3): pp. 153-160.
- Norskov-Lauritsen, N., Claesson, R., Jensen, A. B., Aberg, C. H., dan Haubek, D. (2019). *Aggregatibacter actinomycetemcomitans*: clinical significance of a pathobiont subjected to ample changes in classification and nomenclature. *Pathogens*. 8(4): pp. 1-18.
- Nuryadi., Astuti, T. D., Utami, E. S., Budiantara, M. 2017. *Dasar-dasar Statistik Penelitian*. Si Buku Media. Yogyakarta.
- Oktaviani, R. F., Astuti, P., Wahyukundari, M. A. 2022. Aktivitas antibakteri ekstrak daun sirih merah (*Piper crocatum*) terhadap pertumbuhan *Aggregatibacter actinomycetemcomitans*. *Jurnal Kedokteran Gigi Universitas Padjajaran*. 34(1): pp. 66-72.
- Oscarsson, J., Claesson, R., Lindholm, M., Aberg, C. H., Johansson, A. 2019. Tools of *Aggregatibacter actinomycetemcomitans* to evade the host response. *Journal of clinical medicine*. 8(1079): pp. 1-12.
- Palaksha, M. N., Aishwarya, K. S., Arpittha, S. M., Kumar, P., Kumar, R. H. M., Khousik, M. 2019. Evaluation of in-vitro antibacterial and anthelmintic activities of *Sauropus androgynus* (*Phyllanthaceae*) plant extract. *International Journal of Pharmacognosy and Chinese Medicine*. 3(2): pp. 1-7.
- Putri, D. A., Widodo, A. H. B., Ichsyani, M., Naufalin, R., Oedjijono. The activities Torch Ginger Flower (*Etingera elatior*) ethanol extract on degradation of *Porphyromonas gingivalis* biofilm as periodontal pathogen. *Journal of Indonesian Dental Association*. 6(1): pp. 31-38.
- Rahmi, M., dan Putri, D. H. (2020). The antimicrobial activity of DMSO as A natural extract solvent aktivitas antimikroba DMSO sebagai pelarut ekstrak alami. *Serambi Biologi*. 5(2): pp. 56–58.
- Ramadhani, N. F., Nugraha, A. P., Putra Gofur, N. R., Permatasari, R. I., dan Ridwan, R. D. (2020). Increased levels of malondialdehyde and cathepsin C by *Aggregatibacter actinomycetemcomitans* in saliva as aggressive periodontitis biomarkers: A review. *Biochemical and Cellular Archives*. 20(1): pp. 2895–2901.
- Ramadheni, P., Mukhtar, H., Prahmono, D. 2018. Uji aktivitas antibakteri ekstrak etanol daun katuk (*Sauropus androgynus* (L.) Merr) terhadap bakteri *Staphylococcus aureus* dan *Escherichia coli* dengan metode difusi agar. *Indonesia Natural Research Pharmaceutical Journal*. 2(2): pp. 34-45.

- Ratih, I. A. D. K., Yudita, W. H. 2019. Hubungan tingkat pengetahuan tentang cara memelihara kesehatan gigi dan mulut dengan ketersediaan alat menyikat gigi pada narapidana kelas IIB rutan gianyar tahun 2018. *Jurnal Kesehatan Gigi*. 6(2): pp. 23-26.
- Reiza, I. A., Rijai, L., Mahmudah, F. 2019. Skrining fitokimia ekstrak etanol kulit nanas (*Ananas comosus* (L.) Merr). Proceeding of Mulawarman Pharmaceutical Conferences.
- Rexvid, S., dan Lundmark, A. 2017. Quantification of formation of *Aggregatibacter actinomycetemcomitans* with various genotype and phenotype. *Tesis*. Universitas Umea. Dipublikasikan.
- Rosalina, L., Oktarina, R., Rahmiati., Saputra, I. 2023. *Buku Ajar Statistika*. CV Muharika Rumah Ilmiah. Padang.
- Roshna, T., dan Nandakumar, K. 2012. Generalized aggressive periodontitis and its treatment options: A case reports and review of the literature. *Case Rep Med*.
- Rosyada, A. G., Prihastuti, C. C., Sari, D. N. I., Setiawati., Ichsyani, M., Laksitasari, A., Andini, R. F., Kurniawan, A. A. 2023. Aktivitas antibiofilm ekstrak etanol kulit bawang merah (*Allium cepa* L.) dalam menghambat pembentukan biofilm *Staphylococcus auerus* ATCC 25923: penelitian eksperimental laboratoris. *Jurnal Kedokteran Gigi Unpad*. 35(1): pp. 33-40.
- Salsabila, G., Soulissa, A. G., Widayarmen, A.S. 2022. Antibiofilm effect of rambutan leaf extract (*Nephelium lappaceum* L.) against *Aggregatibacter actinomycetemcomitans* and *Treponema denticola* (*in vitro*). *Journal e-Gigi*. 10(1): pp. 103-108.
- Samaranayake, L. 2018. *Essential Microbiology for Dentistry*. 5<sup>th</sup> ed. Elsevier. Philadelphia.
- Somba, A. S., Kreckhoff, R. L., Kusen, D. J., Manoppo, H., Tumbol, R. A., Losung, F. 2023. Uji fitokimia dan aktivitas antimikroba ekstrak kulit pisang kepok (*Musa paradisiaca*) terhadap bakteri *Aeromonas hydrophila*. 11(1): pp. 1-9.
- Suprith, S. S., Setty, S., Bhat, K., Thakur, S. 2018. Serotypes of *Aggregatibacter actinomycetemcomitans* in relation to periodontal status and assessment of leukotoxin in periodontal disease: A clicino-microbiological study. *Journal of Indian Society of Periodontology*. 22(3): pp. 201-208.
- Syahiran, S., Wan Taib, W. R., dan Jaffar, N. (2020). *Aggregatibacter actinomycetemcomitans*: The virulence factors and relation to persistence biofilm formation. *Biomedicine (India)*. 40(4): pp. 429–435.
- Susanti, N. M. P., Budiman, I. N. A., Warditiani, N. K. 2021. Skrining fitokimia ekstrak etanol 90% daun katuk (*Sauvagesia androgynus* (L.) Merr). *Jurnal*

- Farmasi Udayana.* 3(1): pp. 83-86.
- Tethool, A. M., Tulandi, S.S., Tulandi, H. V., Paat, V. O., Patalangi, N. O. 2021. Pengaruh daya hambat sediaan salep ekstrak daun katuk (*Sauropus androgynus* L.) terhadap pertumbuhan bakteri *Staphylococcus aureus*. *Jurnal Biofarmasetikal Tropis.* 4(2): pp. 33-38.
- Thieme, L., Hartung, A., Tramm, K., Klinger-Strobel, M., Jandt, K. D., Makarewicz, O., Pletz, M. W. 2019. MBEC versus MBIC: the lack of differentiation between biofilm reducing and inhibitory effect as a current problem in biofilm methodology. *Biological procedures online.* 21(18): pp. 1-5.
- Tiara, M. S., dan Muchtaridi, M. (2018). Aktivitas farmakologi ekstrak daun katuk (*Sauropus androgynus* (L.) Merr). *Farmaka.* 16(2): pp. 398–405.
- Umamity, A. M. Pengaruh ekstrak etanol daun cengkah (*Syzygium aromaticum*) terhadap pertumbuhan bakteri *Aggregatibacter actinomycetemcomitans*. Manuscript. Semarang: Universitas Muhammadiyah Semarang. 2018.
- Weir, C. B., dan Le, J. K. 2023. Metronidazole. In: *Statpearls*. [Internet]. Available at <https://www.ncbi.nlm.nih.gov/books/NBK539728/>. Diakses pada 13 Oktober 2023.
- Zhang, B. dou, Cheng, J. xin, Zhang, C. feng, Bai, Y. dan, Liu, W. yuan, Li, W., Koike, K., Akihisa, T., Feng, F., dan Zhang, J. 2020. *Sauropus androgynus* L. Merr.a phytochemical, pharmacological and toxicological review. *Journal of Ethnopharmacology.* 257(11278): pp. 1-13.
- Zhang, X., Wang X., Wu, J., Wang, M., Hu, B., Qu, H., Zhang, J., Li, Q. The global burden of periodontal disease in 204 countries and territories from 1990 to 2019. *Oral Disease.*
- Zhou, X., Li, Y. 2015. *Atlas of Microbiology from Healthy Microflora to Disease*. Elsevier Science. China.