UNIVERSITAS
GADJAH MADA
Pengaruh Ekstrak Daun Sirih Merah (Piper crocatum Ruiz & Pav.) terhadap Destruksi Biofilm Streptococcus mutans ATCC 25175 In Vitro
SHAFIRA RIZKY R, Prof. drg. Tetiana Haniastuti, M.Kes., Ph.D.; drg. Vincensia Maria Karina, M.DSc., Sp(Perio)
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Afiff, F.E. dan Amilah, S., (2017) Efektivitas Ekstrak Daun Mengkudu (*Morinda citrifolia L.*) dan Daun Sirih Merah (*Piper crocatum* Ruiz & Pav) terhadap Zona Hambat Pertumbuhan *Staphylococcus aureus*. *Stigma.* 10(1): 12-16.

Agustina, T., Sunyoto, Agustina, A., (2014) Penetapan Kadar Tanin pada Daun Sirih Merah (*Piper crocatum* Ruiz dan Pav) Secara Spektrofotometri UV-Vis. *Journal of Pharmacy Science*. 5(1): 42-49.

Aisyiyah, N.M., Siregar, K.A.A.K., Kustiawan, P.M., (2021) Review: Potensi Daun Sirih Merah sebagai Antiinflamasi pada *Rheumatoid Arthritis*, *Jurnal Farmasi Sains dan Praktis*. 7(2): 197-206.

American Type Culture Collection, (2021) *Streptococcus mutans* 25175, https://www.atcc.org/products/25175, diakses 3 April 2022.

Anas, R., Kurniawan, Puspitasari, Y., (2018) Perbedaan Daya Hambat Antibakteri antara Ekstrak Daun Sirih Merah (*Piper crocatum*) dan Ekstrak Daun Sirih Hijau (*Piper betle L.*) terhadap Bakteri *Streptococcus mutans*. *As-Syifaa*. 10(1): 120-125.

Batubara, Rafi, M., Yolanda, M.L., (2020) Antioxidant, Antibacterial, and Degradation *Streptococcus mutans* Biofilms Activities of Black Pepper (*Piper nigrum*) Seed Extract. *AIP Conference Proceedings*. 2243(1): 030003.

Bilbilova, E.Z., (2021) *Dental Caries*. London: IntechOpen. pp 1.

Brookes, Z.L.S., Bescos, R., Belfield, L.A., Ali, K., Roberts, A., (2020) Current uses of chlorhexidine for management of oral disease: narrative review. *Journal of Dentistry*. 103: 103497.

Cappuccino, J.G. dan Welsh, C., (2020) *Microbiology: A Laboratory Manual*. 12th ed. Hokoben: Pearson. pp 421.

Cho, E., Hwang, J.Y., Park, J.S., Oh, D., Oh, D.C., Park, H.G., Shin, J., Oh, K.B., (2022) Inhibition of *Streptococcus mutans* adhesion and biofilm formation with small-molecule inhibitors of sortase A from *Juniperus chinensis*. *Journal of Oral Microbiology*. 14: 1-11.

Egra, S., Mardhiana, Rofin, M., Adiwena, M., Jannah, N., Kuspradini, Mitsunaga, T., (2019) Aktivitas Antimikroba Ekstrak Bakau (*Rhizophora mucronate*) dalam Menghambat Pertumbuhan *Ralstonia solanacearum* Penyebab Penyakit Layu. *AGROTIVOR*. 12(1): 26-31.

Federika, A.S., Rukmo, M., Setyabudi, (2020) Antibiofilm activity of flavonoid mangosteen pericarp extract against *Porphyromonas gingivalis* bacteria. *Conservative Dentistry Journal*. 10(1): 27-30.

Garg, N. dan Garg, A., (2015) *Textbook of Operative Dentistry*. 3rd ed. New Delhi: Jaypee Brothers Medical Publishers. pp 42, 44.

UNIVERSITAS
GADJAH MADA
Pengaruh Ekstrak Daun Sirih Merah (Piper crocatum Ruiz & Pav.) terhadap Destruksi Biofilm Streptococcus mutans ATCC 25175 In Vitro
SHAFIRA RIZKY R, Prof. drg. Tetiana Haniastuti, M.Kes., Ph.D.; drg. Vincensia Maria Karina, M.DSc., Sp(Perio)
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Goldberg, M., (2016) *Understanding Dental Caries: From Pathogenesis to Prevention and Therapy.* Paris: Springer. pp 43, 44.

Hamzah, H., Hertiani, T., Pratiwi, S.U.T., Nuryastuti, T., (2019) The Inhibition 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): 110-118.

Haniastuti, T., (2016) Penurunan Hidrofobisitas Permukaan Sel Bakteri Plak Gigi Setelah Dipapar Rebusan Daun Sirih Merah Konsentrasi 10%. *Dentika Dental Journal*. 19(1): 36-41.

Heliawati, L., Lestari, S., Hasanah, U., Ajiati, D., Kurnia, D., (2022) Phytochemical Profile of Antibacterial Agents from Red Betel Leaf (*Piper crocatum* Ruiz and Pav) against Bacteria in Dental Caries. *Molecules*. 27(2861): 1-19.

Heymann, H.O., Swift Jr, E.J., Ritter, A.V., (2013) *Sturdevant's Art and Science of Operative Dentistry.* 6th ed. St. Louis: Elsevier. pp 41, 44, 54, 114.

Hidayah, N., Mustikaningtyas, D., Bintari, S.H., (2017) Aktivitas Antibakteri Infusa Simplisia *Sargassum muticum* terhadap Pertumbuhan *Staphylococcus aureus*. *Life Science*. 6(2): 49-54.

Integrated Taxonomic Information System (ITIS), *Streptococcus mutans*, https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=966483#null, diakses 4 Maret 2022.

Januarti, I.B., Wijayanti, R., Wahyuningsih, S., Nisa, Z., (2019) Potensi Ekstrak Terpurifikasi Daun Sirih Merah (*Piper crocatum* Ruiz &Pav) Sebagai Antioksidan dan Antibakteri. *Journal of Pharmaceutical Science and Clinical Research*. 4(2): 60-68.

Kaczmarek, B., (2020) Tannic Acid with Antiviral and Antibacterial Activity as A Promising Component of Biomaterials. *Materials*. 13(3224): 1-13.

Kasuma, N., (2016) *Plak Gigi*. Padang: Andalas University Press. pp 2, 9.

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): 150-163.

Kementerian Kesehatan RI, (2019) *InfoDATIN: Kesehatan Gigi Nasional*. Pusat Data dan Informasi Kementerian Kesehatan RI. pp 1.

Larsen, T. dan Fiehn, N.E., (2017) Dental biofilm infections – an update. *Acta Pathologica, Microbiologica et Immunologica Scandinavica*. 125: 376-384.

Lestaluhu, I.J., (2021) *Pengaruh Konsentrasi Ekstrak Kulit Jeruk Manis (Citrus sinensis) terhadap Pembentukan Biofilm Bakteri Kariogenik*. (Abstr).

Maghfirah, F., Saputri, D., Basri, (2017) Aktivitas Pembentukan Biofilm *Streptococcus mutans* dan *Candida albicans* Setelah Dipapar dengan *Cigarette Smoke Condensate* dan Minuman Probiotik. *Journal Caninus Dentistry*. 2(1): 12-19.

UNIVERSITAS
GADJAH MADA
Pengaruh Ekstrak Daun Sirih Merah (Piper crocatum Ruiz & Pav.) terhadap Destruksi Biofilm Streptococcus mutans ATCC 25175 In Vitro
SHAFIRA RIZKY R, Prof. drg. Tetiana Haniastuti, M.Kes., Ph.D.; drg. Vincensia Maria Karina, M.DSc., Sp(Perio)
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Mervrayano, J., Rahmatini, Bahar, E., (2015) Perbandingan Efektivitas Obat Kumur yang Mengandung Chlorhexidine dengan Povidone Iodine terhadap Streptococcus mutans. *Jurnal Kesehatan Andalas*. 4(1): 168-171.

Mitwalli, H., Alsahafi, R., Balhaddad, A.A., Weir, M.D., Xu, H.H.K., Melo, M.A.S., (2020) Emerging Contact-Killing Antibacterial Strategies for Developing Anti-Biofilm Dental Polymeric Restorative Materials. *Bioengineering*. 7(3): 83.

Mosaddad, S.A., Tahmasebi, E., Yazdanian, A., Rezvani, M.B., Seifalian, A., Yazdanian, M., Tebyanian, H., (2019) Oral microbial biofilms: an update. *European Journal of Clinical Microbiology & Infectious Diseases.* 38(11): 2005-2019.

Mukhbitin, F., (2018) GAMBARAN KEJADIAN KARIES GIGI PADA SISWA KELAS 3 MI AL-MUTMAINNAH. *Jurnal Promkes.* 6(2): 155-166.

Nazir, R., Zaffar, M.R., Amin, I., (2019) *Bacterial biofilms: the remarkable heterogeneous biological communities and nitrogen fixing microorganisms in lakes*. Dalam: Bandh, S.A., Shafi, S., Shameem, N. *Freshwater Microbiology: Perspective of Bacterial Dynamics in Lake Ecosystem*. Srinagar: Academic Press. pp 308.

Neldawati, Ratnawulan, Gusnedi, (2013) Analisis Nilai Absorbansi dalam Penentuan Kadar Flavonoid untuk Berbagai Jenis Daun Tanaman Obat. *Pillar of Physics*. 2: 76-83.

Nuraini, P., Pradopo, S., Pronorahardjo, A.S., (2020) Sucrose and Xylitot-Induced *Streptococcus mutans* Biofilm Adherence. *Pesquisa Brasileira em Odontopediatria e Clinica Integrada*. 20: 1-5.

Rahman, F.A., Haniastuti, T., Utami, T.W., (2017) Skrining fitokimia dan aktivitas antibakteri ekstrak etanol daun sirsak (*Annona muricata* L.) pada *Streptococcus mutans* ATCC 35668. *Majalah Kedokteran Gigi Indonesia*. 3(1): 1-7.

Rezeki, S., (2017) Pengaruh Ekstrak Daun Sirih Merah (*Piper crocatum*) terhadap Pertumbuhan *Candida albicans*. *Journal of Syiah Kuala Dentistry Society*. 2(1): 52-62.

Samaranayake, L., (2012) *Essential Microbiology for Dentistry.* 4th ed. China: Elsevier. pp 273, 280, 281, 284, 285.

Soetjipto, H., (2018) Antibacterial Properties of Essential Oil in Some Indonesian Herbs. Dalam: El-Shemy, H.A., ed. *Potential of Essential Oils*. London: IntechOpen. pp 43.

Suri, M.A., Azizah, z., Asra, R., (2021) A Review: Traditional Use, Phytochemical and Pharmacological Review of Red Betel Leaves. *Asian Journal of Pharmaceutical Research and Development*. 9(1):159-163.

Tandelilin, R.T.C. dan Saini, R., (2018) *Dental Plaque: A Biofilm*. Yogyakarta: Kanisius. pp 24.

UNIVERSITAS
GADJAH MADA
Pengaruh Ekstrak Daun Sirih Merah (Piper crocatum Ruiz & Pav.) terhadap Destruksi Biofilm Streptococcus mutans ATCC 25175 In Vitro
SHAFIRA RIZKY R, Prof. drg. Tetiana Haniastuti, M.Kes., Ph.D.; drg. Vincensia Maria Karina, M.DSc., Sp(Perio)
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Tim Riskesdas 2018, (2019) *Laporan Nasional Riskesdas 2018*. Jakarta: Lembaga Penelitian Badan Penelitian dan Pengembangan Kesehatan. pp. 204.

Tortora, Funke, Case (2019) *Microbiology: an Introduction*. 13th ed. Boston: Pearson. pp 135, 190, 426, 724.

Yan, Y., Li, X., Zhang, C., Lv, L., Gao, B., Li, M., (2021) Research Progress on Antibacterial Activities and Mechanisms of Natural Alkaloids: A Review. *Antibiotics*. 10(318): 1-30.

Yu, M. dan Chua, S.L., (2019) Demolishing the great wall of biofilms in Gram-negative bacteria: To disrupt or disperse?. *Medicinal Research Reviews*. 40: 1-14.