DAFTAR PUSTAKA

Abuhaimed, T.S. & Neel, E.A.A., 2017. Sodium Hypochlorite Irrigation and Its Effect on Bond Strength to Dentin. *BioMed Research International*, 2017.

Alamoudi, R.A., 2019. The smear layer in endodontic: To keep or remove-an updated overview. *Saudi Endodontic Journal*, 9(2), pp.71–81.

Andrabi, S.M.U.N. dkk., 2013. Effect of manual dynamic activation on smear layer removal efficacy of ethylenediaminetetraacetic acid and SmearClear: An in vitro scanning electron microscopic study. *Australian Endodontic Journal*, 39(3), pp.131–136.

Bachtiar, Z.A., 2016. Perawatan Saluran Akar Pada Gigi Permanen Anak Dengan Bahan Gutta Percha. *Jurnal PDGI*, 65 (2)(2), pp.60–67.

Bijarnia RK, Bachtler M, Chandak PG, van Goor H, Pasch A (2015) Sodium Thiosulfate Ameliorates Oxidative Stress and Preserves Renal Function in Hyperoxaluric Rats. PLoS ONE 10(4): e0124881. doi:10.1371/journal.pone.0124881

Boal, A.K. & Patsalis, F.I., 2017. Use of Sodium Thiosulfate to Quench Hypochlorite Solutions Prior to Chlorate Analysis. *Journal - American Water Works Association*, 109(10), pp.E410–E415.

Bodrumlu, E., Parlak, E. & Bodrumlu, E.H., 2012. The effect of irrigation solutions on the apical sealing ability in different root canal sealers. *Brazilian Oral Research*, 24(2), pp.165–169.

Bogra, Nikhil. Studi of dimercapto siccinic acid, sodium hypochlorite and their combination used as irrigant in root canals. J Endod 2003; 15: 19-25.

Cahyani, & Hadriyanto, W, Dayinah,. 2021. The Difference of One-Third Apical Root Canal Cleanliness After Instrumentation Between Single File System and Multiple File With Continuous Rotation Motion. 10.2991/ahsr.k.210201.003.

Carrasco, R. dkk., 2015. Sonic versus ultrasonic activation for the cleaning of the root canal after post space preparation: an in vitro study. *Journal Oral Of Research*, 4(4), pp.255–262.

Das, A. & Bansal, D., 2017. Drug Review : Sodium Thiosulfate Drug Review . Sodium Thiosulfate : Role as an otoprotectant. , (January 2013).

Deviyanti, S., 2019. Antimicrobial potency of photoactivated desinfection toward Enterococcus faecalis in root canal treatment. *Cakradonya Dent J*, 11(1), pp.33–37.

Dike, S. dkk., 2014. kebersihan saluran akar The effectiveness of 8 % propolis extract and 2 , 5 % sodium hypochlorite (NaOCl) for the cleanliness of root canal. , 4(2), pp.45–51.

Dohaithem AJ, Tovar N, Coelho PG, Alnazhan S, Almansouri S, Bafail A. A scanning electron microscopy evaluation of the cleanliness of un-instrumented areas of canal walls after root canal preparation. Saudi Endod J 2015;5:114-9

Estrela C, Estrela CRA, Barbin EL, Spano JCE, Marchesan MA,Pecora JD. "Mechanism of Action Sodium Hypochlorite." Braz Dent J. 13:2(2002):113-117.

Farina Eka. 2014. Efektivitas Ekstrak Kulit Manggis terhadap Kebersihan Saluran Akar. Conservative Dentistry Journal, 4(1): 13-16

Lo Giudice, G. dkk., 2016. The effect of different cleaning protocols on post space: A SEM study. *International Journal of Dentistry*, 2016, pp.20–23.

Gu, Y. dkk., 2017. Effect of Different Agitation Techniques on the Penetration of Irrigant and Sealer into Dentinal Tubules. *Photomedicine and Laser Surgery*, 35(2), pp.71–77.

Giuseppe Lo Giudice, Giuseppina Cutroneo, Antonio Centofanti, Alessandro Artemisia, Ennio Bramanti, Angela Militi, Giuseppina Rizzo, Angelo Favaloro, Alessia Irrera, Roberto Lo Giudice, Marco Cicciù, 2015. "Dentin Morphology of Root Canal Surface: A Quantitative Evaluation Based on a Scanning Electronic Microscopy Study", *BioMed Research International*, vol. 2015, Article ID 164065, 7 pages, 2015. https://doi.org/10.1155/2015/164065

Haapasalo M, Shen Y, Wang Z, Gao Y. Irrigation in endodontics. Br Dent J. 2014

Hargreaves, K. M., Stephen C.,2011. Cohen's Pathway of the Pulp Tenth Edition Missouri: MOSBY Elsevier; 246-250

Held P. 2014. Rapid Critical Micelle Concentration (CMC) Determination Using Fluorescence Polarization. BioTek Instruments, Inc, p. 1

Hulsmann, M., Scahfer, E., Bargholz, C., Barthel, C., 2009, Problem in Endodontics, Quintessence Publishing, Germany, hal 253-61

Hui Kheng Chng, N.N.C., 2004. Guidelines for root canal treatment. *singapore Dental Journal*, 156(1), pp.8–8.

Ingle JI. 2009. Pretty Darned Quick Endodontics. 2nd ed. People's Medical Publishing House, USA, p. 62.

Jayshree Hegde, Kusum Bashetty, Krisnakumar, U.G., 2012. Quantity of sodium

thiosulfate required to neutralize various concentrations of sodium hypochlorite. , pp.1–5.

Kamel, W.H. & Kataia, E.M., 2014. Comparison of the efficacy of smear clear with and without a canal brush in smear layer and debris removal from instrumented root canal using waveone versus protaper: A scanning electron microscopic study. *Journal of Endodontics*, 40(3), pp.446–450. Available at: http://dx.doi.org/10.1016/j.joen.2013.09.028.

Kurniawan, C., Waluyo, T.B. & Perdamean Sebayang, 2011. Analisis Ukuran Partikel Menggunakan Free Software Image-J. *Seminar Nasional Fisika*, (Juli 2011), pp.1–9. Available at: https://www.researchgate.net/publication/215445822.

Lam, T. S. K., Wong, O. F. & Tang, S. Y. H. A Case Report of Sodium Hypochlorite. Hong Kong Journal of Emergency Medicine. 2010; 17(2): 174-175

Luis Felipe Coutrin de Toledo, Cristiane de Souza Siqueira Pereira, Evelyn Oliveira de Paulo Barreto França, Thamires Chagas de Medeiros, Marco Orsini, Marco Azizi, Jacqueline Fernandes do Nascimento, Michelle Paiva Weydt Galhardi, Vivian Ronquete, Pablo Amoroso-Silva and Marília Fagury Videira Marceliano-Alves. 2020. The para-chloroaniline prevention after the use of sodium thiosulfate as an intermediary irrigator between sodium hypochlorite and chlorhexidine J. Endocrinology and Disorders 4(1);DOI: 10.31579/2640-1045/051

De Lima Dias-Junior, L.C. dkk., 2021. Effect of sodium thiosulfate on interfacial adaptation and penetration of an epoxy resin-based root canal sealer. *Iranian Endodontic Journal*, 16(1), pp.33–37.

Manjunatha, M. dkk., 2013. Smear Layer Evaluation on Root Canal Preparation with Manual and Rotary Techniques using EDTA as an Irrigant: A Scanning Electron Microscopy Study. *Journal of international oral health : JIOH*, 5(1), pp.66–78. Available at: http://www.ncbi.nlm.nih.gov/pubmed/24155580.

Marashdeh, M.Q. dkk., 2019. Endodontic pathogens possess collagenolytic properties that degrade human dentine collagen matrix. *International Endodontic Journal*, 52(4), pp.416–423.

Marion, J.J.C. dkk., 2012. Efficiency of different concentrations of sodium hypochlorite during endodontic treatment. Literature review. *Dental Press Endodontics*, 2(4), pp.32–37.

Merdad, Khalid. 2021. Cariological Studies on Endodontically Treated Teeth.

I.A. Mjör, M. R. Smith, M. Ferrari, and F. Mannocci, 2001. "The structure of dentine in the apical region of human teeth," *International Endodontic Journal*, vol. 34, no. 5, pp. 346–353.

Mohammadi, Z. dkk., 2017. A Review Over Benefits and Drawbacks of Combining Sodium Hypochlorite with Other Endodontic Materials. *The Open Dentistry Journal*, 11(1), pp.661–669.

Nawrocka A, Łukomska-Szymańska M. Extracted human teeth and their utility in dental research. Recommendations on proper preservation: A literature review. Dent Med Probl. 2019 Apr-Jun;56(2):185-190. doi: 10.17219/dmp/105252. PMID: 31274256.

Nurisawati, I.M., Muryani, A. & Nurdin, D., 2017. Perbedaan kebersihan sepertiga apikal saluran akar yang diirigasi sodium hipoklorit 2,5% dengan teknik non agitasi dan agitasi manual dinamik. *Jurnal Kedokteran Gigi Universitas Padjadjaran*, 29(3), pp.1–5.

Paradella TC, Bottino MA. 2012. Scanning Electron Microscopy in Modern Dentistry Research. Braz Dent Sci.15(2): 43-48.

Parker A. 2007. JIFSAN Good Aquacultural Practices Manual Section 9–Effective Cleaning and Sanitizing Procedures. University of Maryland and the JohnsonDiversey Corporation, pp. 2-3

Pasricha, S.K., Makkar, S. & Gupta, P., 2015. Pressure alteration techniques in endodontics-a review of literature. *Journal of Clinical and Diagnostic Research*, 9(3), p.ZE01-ZE06.

Pashley, D.H, Liewhr, F. R. 2006. Structure and Function of the Dentin-pulp Complex.Mosby Elsevier; St Louis : 465-468

Patel, S. dkk., 2015. Antioxidants in endodontics: A strategic review. *Journal of Clinical and Diagnostic Research*, 9(5), p.ZE12-ZE15.

P. Bhuvaneswari. Antioxidant in Oral Healthcare. J Pharm Sci & Res Vol.6 (4): 206-209. 2014.

Peters, O.A., 2016. Colleagues for Excellence Canal Preparation and Obturation: An Updated View of the Two Pillars of Nonsurgical Endodontics. *American Association of Endodontists*. Available at: www.aae.org/colleagues.

Pimentel Corrêa, A.C. dkk., 2016. Sodium Thiosulfate for Recovery of Bond Strength to Dentin Treated with Sodium Hypochlorite. *Journal of Endodontics*, 42(2), pp.284–288.

Plotino, G. dkk., 2016. New technologies to improve root canal disinfection. *Brazilian Dental Journal*, 27(1), pp.3–8.

Poletto, D. dkk., 2017. Smear layer removal by different chemical solutions used with or without ultrasonic activation after post preparation. *Restorative Dentistry & Endodontics*, 42(4), p.324.

Prati C., Foschi F, Nucci C., Montebugnoli L., Marchionni S., 2004, Appearance of the root canal walls after preparation with Niti rotary instruments: a comparative SEM investigation, Clin Oral Invest, 8:102-110

Ramadhiani, C.N., Santosa, R.T.E.U.P. & Mulyawati, E., 2016. Pengaruh Kombinasi Larutan Irigasi Terhadap Kebocoran Apikal Pada Obturasi Saluran Akar Menggunakan Siler Resin Epoksi dan Mineral Trioxide Aggregate. *Jurnal Kedokteran Gigi*, 7(2), pp.19–25.

Rao RN. 2009. Advanced Endodontics. 1st edn. Jaypee Brothers Medical Publishers, New Delhi, p. 133

Rashidi M, Sohrabi B, Golafshan S, Bahramian A. 2014. Extraction of Nonionic Natural Surfactans (saponin) from Ginseng Medical Plant. Institute of Petrolium Engineering School of Engineering, College of Engineering, University of Tehran, Karegar Street, Tehran, Iran, p. 5

Renata, B.N., Santosa, P. & Mulyawati, E., 2016. Pengaruh Konsentrasi Natrium Hipoklorit Sebagai Bahan Irigasi Dan Jenis Bahan Bonding Terhadap Kebocoran Mikro Resin Komposit Bulkfill Viskositas Rendah Pada Dentin Kamar Pulpa. *Jurnal Kedokteran Gigi*, 7(2), pp.14–18.

Resgalla, C. dkk., 2012. Evaluation of effectiveness of EDTA and sodium thiosulfate in removing metal toxicity toward sea urchin embryo-larval applying the TIE. *Chemosphere*, 89(1), pp.102–107. Available at: http://dx.doi.org/10.1016/j.chemosphere.2012.04.033.

Sahebi, S., Sobhnamayan, F., Moazami, F. *et al.* Assessment of sodium thiosulfate neutralizing effect on micro-hardness of dentin treated with sodium hypochlorite. *BMC Oral Health* **20,** 326 (2020). https://doi.org/10.1186/s12903-020-01320-2

Selwyn, L. & Tse, S., 2008. The chemistry of sodium dithionite and its use in conservation. *Studies in Conservation*, 53(sup2), pp.61–73.

da Silva Beraldo, Â.J. dkk., 2017. Scanning electron microscopic evaluation of smear layer removal using isolated or interweaving EDTA with sodium hypochlorite. *Iranian Endodontic Journal*, 12(1), pp.55–59.

Severing, A.-L., Rembe, J-D., Koester, V. & Stuermer, E.K., 2018. Safety and efficacy profiles of different commercial sodium hypochlorite/hypochlorous acid solutions (NaClO/HClO): antimicrobial efficacy, cytotoxic impact and physicochemical parameters in vitro. Journal of Antimicrobial Chemotherapy, pp. 1–8

Shetti A, Keluskar V, Aggarwal A. Antioxidant: Enhancing Oral and General Health. Journal of Indian Academy and Radiology. 2009;21(1):1-6.

Sneha R. Mali, Sabina Shaikh , Abhijeet Phase. (2020). in vitro comparison of three different antioxidants on endodontic sealer infiltration. *International Journal of Advanced Science and Technology*, *29*(8s), 3184-3190. http://sersc.org/journals/index.php/IJAST/article/view/16389

Soares, J.A. dkk., 2019. Pattern of Disinfection of Root Canal Dentin by Alternated Acid-Base Irrigating Regimen. *Scientific World Journal*, 2019.

Soerachman, B., Sukartini, E. & Aripin, D., 2014. The advantage using Ni - Ti rotary instruments as the smoothness of one-third apical root canal wall. *Padjadjaran Journal of Dentistry*, 26(3), pp.147–152.

Stadtländer H, 2007. *Scanning electron microscopy* and trasmission electron microscopy of mollicutes and opportunities, Modern Research and Educational Topics in Microscopy, 122-31

Summit JB, Robins JW, Hilton TJ, Schwartz RS. 2006. Fundamentals of Operative Dentistry: A Contemporary Approach. 3 ed. Chicago, USA: Quintessence Publishing; p. 183- 93

Tabrizizadeh M, Shareghi A. 2015. The Effect of Preparation Size on Efficacy of Smear Layer Removal; A Scanning Electron Microscopic Study. Iran Endod J. 2015;10(3): 169-73. Doi: 10.7508/iej.2015.03.005

Tanumihardja, M., 2010. Larutan irigasi saluran akar. *Journal of Dentomaxillofacial Science*, 9(2), p.108.

Tenore, G. dkk., 2020. Evaluation of photodynamic therapy using a diode laser 635 nm as an adjunct to conventional chemo-mechanical endodontic procedures against Enterococcus faecalis biofilm: Ex-vivo study. *Applied Sciences (Switzerland)*, 10(8), pp.1–11.

Tiwari, S., Rajak, S., Mondal, D.P. & Biswas, D., 2017. Sodium hypochlorite is more effective than 70% ethanol against biofilms of clinical isolates of Staphylococcus aureus. American Journal of Infection Control. 46(6), pp. 37– 42

Tomson, P.L. & Simon, S.R., 2016. Contemporary cleaning and shaping. *Prim Dent J*, 5(2), pp.46–53.

Topbas, C. & Adiguzel, O., 2017. Endodontic Irrigation Solutions: A Review. *International Dental Research*, 7(3), p.54.

Wadudah, N. & Trilaksana, A.C., 2013. Peningkatan Suhu Sodium Hipoklorit Terhadap Pelarutan Jaringan Saluran Akar Dan Antimikrob. *Dental Journal (Majalah Kedokteran Gigi)*, 2(2), pp.1–4.

Walton RE & Torabinejad M. 2009. Endodontics Principle and Practice. 4th edn. Saunders an imprint of elsevier inc, St. Louis, Missouri, p. 264

Wang, H.-H. dkk., 2017. Smear layer and debris removal from dentinal tubules using different irrigation protocols: scanning electron microscopic evaluation, an in vitro study. *Evidence-Based Endodontics*, 2(1), pp.4–9.

Wu, D. dkk., 2020. Removal of the root canal smear layer using Carisolv III and sodium hypochlorite. *Medicine*, 99(22), p.e20372.

Zaparolli D, Paulo C. Cruz-Filho AM. 2012. Effect of Sodium Hypochlorite and EDTA Irrigation, Individually and in Alternation,on Dentin Microhardness at the Furcation Area of mandibular Molars. Brazil Dental J; 23(6): 654-658

Zehnder, Matthias. “Root canal irrigants.” *Journal of endodontics* vol. 32,5 (2006): 389-98. doi:10.1016/j.joen.2005.09.014