



## DAFTAR PUSTAKA

- Abdulhalim, B.-E.H., Wagih, M.M., Gad, A.A.M., Boghdadi, G., dan Nagy, R.R.S., 2015. Amniotic membrane graft to conjunctival flap in treatment of non-viral resistant infectious keratitis: a randomised clinical study. *British Journal of Ophthalmology*, **99**: 59–63.
- Acera, A., Rocha, G., Vecino, E., Lema, I., dan Durán, J.A., 2008. Inflammatory markers in the tears of patients with ocular surface disease. *Ophthalmic Research*, **40**: 315–321.
- Ahmed, F., House, R.J., dan Feldman, B.H., 2015. Corneal Abrasions and Corneal Foreign Bodies. *Primary Care: Clinics in Office Practice*, **42**: 363–375.
- Ahn, M., Yoon, K.-C., Ryu, S.-K., Cho, N.-C., dan You, I.-C., 2011. Clinical Aspects and Prognosis of Mixed Microbial (Bacterial and Fungal) Keratitis: *Cornea*, **30**: 409–413.
- Akter, L., Salam, M., Hasan, B., Begum, N., dan Ahmed, I., 2010. Etiological agents of suppurative corneal ulcer: Study of 56 cases. *Bangladesh Journal of Medical Microbiology*, **3**: 33–36.
- Altay, Y., Tamer, S., Burcu, A., dan Balta, Ö., 2016. Amniotic membrane transplantation in bacterial and herpetic stromal keratitis. *Turk J Med Sci*, **7**.
- Asroruddin, M., Nora, R.L.D., Edwar, L., Sjamsoe, S., dan Susiyanti, M., 2015. Various factors affecting the bacterial corneal ulcer healing: a 4-years study in referral tertiary eye hospital in Indonesia. *Medical Journal of Indonesia*, **24**: 150–5.
- Badawi, A.E., Moemen, D., dan El-Tantawy, N.L., 2017. Epidemiological, clinical and laboratory findings of infectious keratitis at Mansoura Ophthalmic Center, Egypt. *International Journal of Ophthalmology*, .
- Boonpasart, S., Kasetsuwan, N., Puangsricharern, V., Pariyakanok, L., dan Jittpoonkusol, T., 2002. Infectious keratitis at King Chulalongkorn Memorial Hospital: a 12-year retrospective study of 391 cases. *Journal of*



*the Medical Association of Thailand = Chotmaihet Thangphaet, 85 Suppl 1: S217-230.*

Bourcier, T., 2003. Bacterial keratitis: predisposing factors, clinical and microbiological review of 300 cases. *British Journal of Ophthalmology, 87:* 834–838.

Bowling, B., 2016. *Kanskis Clinical Ophthalmology A Systematic Approach.*

Çaça, I., Ünlü, K., Ari, S., dan Sakalar, Y.B., 2005. Therapeutic Effect of Culture and Antibiogram in Bacterial Corneal Ulcers. *Annals Of Ophthalmology, 37:* 191–194.

Cantor, L.B., Rauano, C.J., dan Cioffi, G.A., 2017. External Eye Disease and Cornea, dalam: *Basic and Clinical Science Course.*

Chan, T.C.Y., Agarwal, T., Vajpayee, R.B., dan Jhanji, V., 2016. Cross-linking for microbial keratitis. *Current Opinion in Ophthalmology, 27:* 348–352.

Chang, Y.-S., Tai, M.-C., Ho, C.-H., Chu, C.-C., Wang, J.-J., Tseng, S.-H., dkk., 2020. Risk of Corneal Ulcer in Patients with Diabetes Mellitus: A Retrospective Large-Scale Cohort Study. *Scientific Reports, 10:* 7388.

Cheung, N., Nagra, P., dan Hammersmith, K., 2016. Emerging trends in contact lens-related infections. *Current Opinion in Ophthalmology, 27:* 327–332.

Dong, Q., Brule, J.M., Iovieno, A., Bates, B., Garoutte, A., Miller, D., dkk., 2011. Diversity of Bacteria at Healthy Human Conjunctiva. *Investigative Ophthalmology & Visual Science, 52:* 5408.

Ebihara, N., Matsuda, A., Nakamura, S., Matsuda, H., dan Murakami, A., 2011. Role of the IL-6 Classic- and Trans-Signaling Pathways in Corneal Sterile Inflammation and Wound Healing. *Investigative Ophthalmology & Visual Science, 52:* 8549.



Erlangga, M.D., Mahayana, I.T., Fachiroh, J., Agni, A.N., Supartoto, A., dan Pawiroranu, S., 2018. Changes in interleukin-6 tear level and clinical outcome in moderate-to-severe bacterial corneal ulcers after corneal collagen cross-linking. *International Journal of Ophthalmology*, **11**: 1421–1424.

Fan, Q.-Q., Li, L., Wang, W.-T., Yang, X., Suo, Z.-W., dan Hu, X.-D., 2014. Activation of  $\alpha$ 2 adrenoceptors inhibited NMDA receptor-mediated nociceptive transmission in spinal dorsal horn of mice with inflammatory pain. *Neuropharmacology*, **77**: 185–192.

Fang, D., Kong, L.-Y., Cai, J., Li, S., Liu, X.-D., Han, J.-S., dkk., 2015. IL-6-mediated functional up-regulation of TRPV1 receptors in DRG neurons via the activation of JAK/PI3K signaling pathway: roles in the development of bone cancer pain in a rat model. *PAIN*, **1**.

Farahani, M., Patel, R., dan Dwarakanathan, S., 2017. Infectious corneal ulcers. *Disease-a-Month*, **63**: 33–37.

Fleiszig, S.M.J. dan Evans, D.J., 2010. Pathogenesis of Contact Lens-Associated Microbial Keratitis: *Optometry and Vision Science*, **1**.

Garg, P. dan Rao, G.N., 1999. Corneal Ulcer: Diagnosis and Management **12**: 3.

Gipson, I.K., 2013. Age-Related Changes and Diseases of the Ocular Surface and Cornea. *Investigative Ophthalmology & Visual Science*, **54**: ORSF48.

Giraldez, M.J., Resua, C.G., Lira, M., Oliveira, M.E.C.D.R., Magariños, B., Toranzo, A.E., dkk., 2010. Contact Lens Hydrophobicity and Roughness Effects on Bacterial Adhesion: *Optometry and Vision Science*, **1**.

Gokhale, N.S., 2008. Medical management approach to infectious keratitis. *Indian Journal of Ophthalmology*, **56**: 215–220.

Green, M., Apel, A., dan Stapleton, F., 2008a. Risk Factors and Causative Organisms in Microbial Keratitis: *Cornea*, **27**: 22–27.



Green, M., Apel, A., dan Stapleton, F., 2008b. A Longitudinal Study of Trends in Keratitis in Australia: *Cornea*, **27**: 33–39.

Green-Church, K.B., Nichols, K.K., Kleinholz, N.M., Zhang, L., dan Nichols, J.J., 2008. Investigation of the human tear film proteome using multiple proteomic approaches. *Molecular Vision*, **14**: 456–470.

Guptarak, J., Wanchoo, S., Durham-Lee, J., Wu, Y., Zivadinovic, D., Paulucci-Holthauzen, A., dkk., 2013. Inhibition of IL-6 signaling: A novel therapeutic approach to treating spinal cord injury pain: *Pain*, **154**: 1115–1128.

Hajihosseini, R., Shohrati, M., Naderi, M., Azimi, N., Esfandiari, M.A., dan Najafian, B., 2014. Evaluation of IL-6 and IL-8 in Tear Fluid of Sulfur Mustard Gas-Exposed Patients with Eye Lesions. *Advances in Bioscience and Biotechnology*, **05**: 790–795.

Heinrich, P.C., Behrmann, I., Haan, S., Hermanns, H.M., Müller-Newen, G., dan Schaper, F., 2003. Principles of interleukin (IL)-6-type cytokine signalling and its regulation. *Biochemical Journal*, **374**: 1–20.

Hennekens, C. H. dan Buring, J. E., 2012, Epidemiology in medicine.

Henry, C.R., Flynn, H.W., Miller, D., Forster, R.K., dan Alfonso, E.C., 2012. Infectious Keratitis Progressing to Endophthalmitis. *Ophthalmology*, **119**: 2443–2449.

Herani, D. N., Suhardjo, Agni, A. N., Fachiroh, J., 2016, Hubungan Kadar Interleukin 6 (Il-6) Pada Air Mata Dengan Derajat Inflamasi Pasca Photorefractive Keratectomy (PRK), Karya Akhir Spesialis Ilmu Penyakit Mata FKMKM UGM.

Higuchi, A., Kawakita, T., dan Tsubota, K., 2011. IL-6 induction in desiccated corneal epithelium in vitro and in vivo. *Molecular Vision*, **7**.



Hoffmann, S., Szentmáry, N., dan Seitz, B., 2013. Amniotic Membrane Transplantation for the Treatment of Infectious Ulcerative Keratitis Before Elective Penetrating Keratoplasty: *Cornea*, **32**: 1321–1325.

Huskisson, E.C., 1974. MEASUREMENT OF PAIN. *The Lancet*, **304**: 1127–1131.

Huskisson, E.C., Wojtulewski, J.A., Berry, H., Scott, J., Hart, F.D., dan Balme, H.W., 1974. Treatment of rheumatoid arthritis with fenoprofen: comparison with aspirin. *British Medical Journal*, **1**: 176–180.

Jeng, B.H., 2010. Epidemiology of Ulcerative Keratitis in Northern California. *Archives of Ophthalmology*, **128**: 1022.

Jensen, M.P., Karoly, P., dan Braver, S., 1986. The measurement of clinical pain intensity: a comparison of six methods. *Pain*, **27**: 117–126.

Jin, H., Parker, W.T., Law, N.W., Clarke, C.L., Gisseman, J.D., Pflugfelder, S.C., dkk., 2017. Evolving risk factors and antibiotic sensitivity patterns for microbial keratitis at a large county hospital. *British Journal of Ophthalmology*, **101**: 1483–1487.

Jones, D.B., 1981. Decision-making in the Management of Microbial Keratitis. *Ophthalmology*, **88**: 814–820.

Katzung, B.G., 2012. *Basic & Clinical Pharmacology*. McGraw-Hill Medical, New York.

Keay, L., Edwards, K., Naduvilath, T., Taylor, H.R., Snibson, G.R., Forde, K., dkk., 2006. Microbial Keratitis. *Ophthalmology*, **113**: 109–116.

Kementerian Kesehatan RI, 2015. Peraturan Menteri Kesehatan RI No. 8 Tahun 2015 tentang Pengendalian Resistensi Antimikroba di Rumah Sakit.

Kheirkhah, A., Tabatabaei, A., Zavareh, M.K., Khodabandeh, A., Mohammadpour, M., dan Raju, V.K., 2012. A controlled study of amniotic membrane transplantation for acute Pseudomonas keratitis. *Canadian Journal of Ophthalmology*, **47**: 305–311.



Khor, W.-B., Prajna, V.N., Garg, P., Mehta, J.S., Xie, L., Liu, Z., dkk., 2018. The Asia Cornea Society Infectious Keratitis Study: A Prospective Multicenter Study of Infectious Keratitis in Asia. *American Journal of Ophthalmology*, **195**: 161–170.

Kiguchi, N., Maeda, T., Kobayashi, Y., dan Kishioka, S., 2008. Up-regulation of tumor necrosis factor-alpha in spinal cord contributes to vincristine-induced mechanical allodynia in mice. *Neuroscience Letters*, **445**: 140–143.

Kishimoto, T., 2005. INTERLEUKIN-6: From Basic Science to Medicine—40 Years in Immunology. *Annual Review of Immunology*, **23**: 1–21.

Kuner, R., 2010. Central mechanisms of pathological pain. *Nature Medicine*, **16**: 1258–1266.

Lange, A.P., Moloney, G., Sheldon, C.A., Sasaki, S., dan Holland, S.P., 2011. Bilateral Corneal Ulceration Caused by Vitamin A Deficiency in Eosinophilic Gastroenteropathy. *Case Reports in Ophthalmology*, **2**: 302–306.

Lee, K.-M., Jeon, S.-M., dan Cho, H.-J., 2010. Interleukin-6 induces microglial CX3CR1 expression in the spinal cord after peripheral nerve injury through the activation of p38 MAPK. *European Journal of Pain*, **14**: 682.e1–682.e12.

Lim, C.H.L., Carnt, N.A., Farook, M., Lam, J., Tan, D.T., Mehta, J.S., dkk., 2016. Risk factors for contact lens-related microbial keratitis in Singapore. *Eye*, **30**: 447–455.

Lin, A., Rhee, M.K., Akpek, E.K., Amescua, G., Farid, M., Garcia-Ferrer, F.J., dkk., 2018. 'Bacterial Keratitis PPP - 2018', *American Academy of Ophthalmology*. URL: <https://www.aao.org/preferred-practice-pattern/bacterial-keratitis-ppp-2018> (diakses tanggal 10/5/2020).

Lin, A., Rhee, M.K., Akpek, E.K., Amescua, G., Farid, M., Garcia-Ferrer, F.J., dkk., 2019. Bacterial Keratitis Preferred Practice Pattern®. *Ophthalmology*, **126**: P1–P55.



Luo, C., Kuner, T., dan Kuner, R., 2014. Synaptic plasticity in pathological pain. *Trends in Neurosciences*, **37**: 343–355.

Mah-Sadorra, J.H., Yavuz, S.G.A., Najjar, D.M., Laibson, P.R., Rapuano, C.J., dan Cohen, E.J., 2005. Trends in Contact Lens–Related Corneal Ulcers **24**: 8.

Martínez-Mesa, J., González-Chica, D.A., Duquia, R.P., Bonamigo, R.R., dan Bastos, J.L., 2016. Sampling: how to select participants in my research study? *Anais Brasileiros de Dermatologia*, **91**: 326–330.

McClintic, S.M., Prajna, N.V., Srinivasan, M., Mascarenhas, J., Lalitha, P., Rajaraman, R., dkk., 2014. Visual Outcomes in Treated Bacterial Keratitis: Four Years of Prospective Follow-up. *Investigative Ophthalmology & Visual Science*, **55**: 2935.

McCormack, H.M., Horne, D.J., dan Sheather, S., 1988. Clinical applications of visual analogue scales: a critical review. *Psychological Medicine*, **18**: 1007–1019.

Millan, M.J., 1999. The induction of pain: an integrative review. *Progress in Neurobiology*, **57**: 1–164.

Miller, D. dan Iovieno, A., 2009. The role of microbial flora on the ocular surface: *Current Opinion in Allergy and Clinical Immunology*, **9**: 466–470.

Musa, F., Tailor, R., Gao, A., Hutley, E., Rauz, S., dan Scott, R.A.H., 2010. Contact lens-related microbial keratitis in deployed British military personnel. *British Journal of Ophthalmology*, **94**: 988–993.

O’Callaghan, R., 2018. The Pathogenesis of *Staphylococcus aureus* Eye Infections. *Pathogens*, **7**: 9.

Oliveira, J. dan Reygaert, W.C., 2020. Gram Negative Bacteria, dalam: *StatPearls*. StatPearls Publishing, Treasure Island (FL).



Parmar, P., Salman, A., Kalavathy, C.M., Kaliamurthy, J., Thomas, P.A., dan Jesudasan, C.A.N., 2006. Microbial Keratitis at Extremes of Age **25**: 6.

Putri, A.M., Heryati, S., dan Nasution, N., 2015. Characteristics and Predisposing Factors of Bacterial Corneal Ulcer in the National Eye Center, Cicendo Eye Hospital, Bandung from January to December 2011. *Althea Medical Journal*, **2**:

Rentka, A., Koroskenyi, K., Harsfalvi, J., Szekanecz, Z., Szucs, G., Szodoray, P., dkk., 2017. Evaluation of commonly used tear sampling methods and their relevance in subsequent biochemical analysis. *Annals of Clinical Biochemistry*, 000456321769584.

Riordan-Eva, P. dan Ausburger, J.J., 2018. *Vaughn Asbury's General Ophthalmology*, 19th ed. McGraw-Hill Medical.

Rosenberg, M.E., Tervo, T.M.T., Immonen, I.J., Muller, L.J., Gronhagen, C., dan Vesaluoma, M.H., 2000. Corneal Structure and Sensitivity in Type 1 Diabetes Mellitus **41**: 7.

S. Lim, N.C., A. Lim, D.K., dan Ray, M., 2013. Polymicrobial Versus Monomicrobial Keratitis: A Retrospective Comparative Study. *Eye & Contact Lens: Science & Clinical Practice*, **39**: 348–354.

Scheller, J., Garbers, C., dan Rose-John, S., 2014. Interleukin-6: From basic biology to selective blockade of pro-inflammatory activities. *Seminars in Immunology*, **26**: 2–12.

Schultz, R.O., Peters, M.A., Sobocinski, K., Nassif, K., dan Schultz, K.J., 1983. Diabetic Keratopathy as a Manifestation of Peripheral Neuropathy. *American Journal of Ophthalmology*, **96**: 368–371.

Scott, J. dan Huskisson, E.C., 1976. Graphic representation of pain. *Pain*, **2**: 175–184.

Shah, A., Sachdev, A., Coggon, D., dan Hossain, P., 2011. Geographic variations in microbial keratitis: an analysis of the peer-reviewed literature. *British Journal of Ophthalmology*, **95**: 762–767.



Shah, V.M., Tandon, R., Satpathy, G., Nayak, N., Chawla, B., Agarwal, T., dkk., 2010. Randomized Clinical Study for Comparative Evaluation of Fourth-Generation Fluoroquinolones With the Combination of Fortified Antibiotics in the Treatment of Bacterial Corneal Ulcers: *Cornea*, **29**: 751–757.

Shaikh, F., Lohano, M.K., dan Memon, I., 2013. Pattern of Microbes Associated to Keratitis in Patients Presenting at Liaquat University Hospital **12**: 6.

Sizar, O. dan Unakal, C.G., 2020. Gram Positive Bacteria, dalam: *StatPearls*. StatPearls Publishing, Treasure Island (FL).

Skaat, A., Zadok, D., Goldich, Y., Varssano, D., Berger, Y., Ezra-Nimni, O., dkk., 2014. Riboflavin/UVA Photochemical Therapy for Severe Infectious Keratitis. *European Journal of Ophthalmology*, **24**: 21–28.

Smith, J. dan Steinemann, T.L., 2000. Vitamin A Deficiency and the Eye: *International Ophthalmology Clinics*, **40**: 83–91.

Sorkhabi, R., Sedgipoor, M., dan Mahdavifard, A., 2013. Collagen cross-linking for resistant corneal ulcer. *International Ophthalmology*, **33**: 61–66.

Stapleton, F., Keay, L., Edwards, K., Naduvilath, T., Dart, J.K.G., Brian, G., dkk., 2008. The Incidence of Contact Lens–Related Microbial Keratitis in Australia. *Ophthalmology*, **115**: 1655–1662.

Su, T.-F., Zhao, Y.-Q., Zhang, L.-H., Peng, M., Wu, C.-H., Pei, L., dkk., 2012. Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors: Reduction of cytokine expression by EA. *European Journal of Pain*, **16**: 624–635.

Tabatabaei, S.A., Soleimani, M., Behrouz, M.J., Torkashvand, A., Anvari, P., dan Yaseri, M., 2017. A randomized clinical trial to evaluate the usefulness of amniotic membrane transplantation in bacterial keratitis healing. *The Ocular Surface*, **15**: 218–226.

Tanaka, T. dan Kishimoto, T., 2014. The Biology and Medical Implications of Interleukin-6. *Cancer Immunology Research*, **2**: 288–294.



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**PROFIL SKALA NYERI DAN KADAR INTERLEUKIN-6 PADA PASIEN ULKUS KORNEA BAKTERI DI RS. MATA DR.YAP DAN RSUP DR. SARDJITO BERDASARKAN PROFIL TERAPI: PROSPECTIVE CASE SERIES**

BANI ADLINA SHABRINA, Dr. Ika Puspita Sari, M.Si., Apt.

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Thomas, P.A., 2003. Fungal infections of the cornea. *Eye (London, England)*, **17**: 852–862.

VanDerMeid, K.R., Su, S.P., Krenzer, K.L., Ward, K.W., dan Zhang, J.-Z., 2011. A method to extract cytokines and matrix metalloproteinases from Schirmer strips and analyze using Luminex. *Molecular Vision*, **17**: 1056–1063.

Videkar, A.K., 2019. *Kocuria varians – An emerging cause of ocular infections. Journal of Medical and Scientific Research*, **7**: 4.

Weisenthal, R.W., Daly, M.K., Feder, R.S., Orlin, S.E., Tu, E.Y., Van Meter, W.S., dkk., 2010. *Basic and Clinical Science Course*, External Eye Disease. American Academy of Ophthalmology, San Francisco.

World Health Organization, R.O. for S.-E.A., 2004. Guidelines for the Management of Corneal Ulcer at Primary, Secondary and Tertiary Care Health Facilities in the South-East Asia Region.

Zemba, M., Stamate, A.-C., Tataru, C., Branisteanu, D., dan Balta, F., 2020. Conjunctival flap surgery in the management of ocular surface disease (Review). *Experimental and Therapeutic Medicine*, .