

## DAFTAR PUSTAKA

- Almon, R. R. et al., 2002. Pharmacodynamics and pharmacogenomics of diverse receptor-mediated effects of methylprednisolone in rats using microarray analysis. *Journal of Pharmacokinetics and Pharmacodynamics*, 29(2), pp. 103-129.
- Alonso, R., Gonzalez-Moron, D. & Garcea, O., 2018. Optical coherence tomography as a biomarker of neurodegeneration in multiple sclerosis: A review. *Multiple Sclerosis and Related Disorder*, Volume 22, pp. 77-82.
- Andrés, C. d. et al., 2017. Activation of Blood CD3+CD56+CD8+ T Cells during Pregnancy and Multiple Sclerosis. *Frontiers Immunology*, Volume 8, p. 196.
- Armentani, A. L. a. b. et al., 2016. Dysregulation of regulatory CD56bright NK cells/T cells interactions in multiple sclerosis. *Dysregulation of regulatory CD56bright NK cells/T cells interactions in multiple sclerosis*, Volume 72, pp. 8-18.
- Babbe, H. et al., 2000. Clonal expansions of CD8(+) T cells dominate the T cell infiltrate in active multiple sclerosis lesions as shown by micromanipulation and single cell polymerase chain reaction. *The Journal of Experimental Medicine*, 192(3), pp. 393-404.
- Baecher-Allan, C., Kaskow, B. J. & Weiner, H. L., 2018. Multiple Sclerosis: Mechanisms and Immunotherapy. *Cell Press*, 97(4), pp. 742-768.
- Balcer, L. J., 2006. Clinical Practice. Optic Neritis.. *New England Journal of Medicine*, 354(12), p. 1273–1280.
- Bando, Y., 2019. Roads to Formation of Normal Myelin Structure and Pathological Myelin Structure. *Advances in Experimental Medicine and Biology*, Volume 1190, pp. 257-264.
- Baumann, N. & Pham-Dinh, D., 2001. Biology of oligodendrocyte and myelin in the mammalian central nervous system. *Physiological Reviews*, 81(2), pp. 871-927.



- Beck, R. W., 1995. The optic neuritis treatment trial: three-year follow-up results. *Archives of Ophthalmology*, 113(2), pp. 136-137.
- Beck, R. W. & Cleary, P. A., 1993. Optic neuritis treatment trial. One-year follow-up results. *Archives of Ophthalmology*, 111(6), pp. 773-775.
- Beck, R. W. & Gal, R. L., 2022. Treatment of Acute Optic Neuritis: A Summary of Findings From the Optic Neuritis Treatment Trial. *Arch Ophthalmol*, 126(7), pp. 994-995.
- Bennett, J. L. et al., 2022. Optic neuritis and autoimmune optic neuropathies: advances in diagnosis and treatment. *The Lancet Neurology*, 22(1), pp. 89-100.
- Bielekova, B. et al., 2006. Regulatory CD56bright natural killer cells mediate immunomodulatory effects of IL-2R $\alpha$ -targeted therapy (daclizumab) in multiple sclerosis. *Proceedings of the National Academy of Sciences of the United States of America*, , 103(15), pp. 5941-5946.
- Braud, V. M. et al., 1998. HLA-E binds to natural-killer-cell receptors CD94/NKG2A, B and C. *Nature*, 391(6669), pp. 795-799.
- Burton, J. M., O'Connor, P. W., Hohol, M. & Beyene, J., 2009. Oral versus intravenous steroids for treatment of relapses in multiple sclerosis. *Cochrane Database of systematic reviews*, Issue 3, p. CD006921.
- Caligiuri, M. A., 2008. Human natural killer cells. *Blood*, 112(3), pp. 461-469.
- Capellino, S., Claus, M. & Watzl, C., 2020. Regulation of natural killer cell activity by glucocorticoids, serotonin, dopamine, and epinephrine. *Cellular & Molecular Immunology*, Volume 17, pp. 705-711.
- Chanvillard, C., Jacolik, R. F., Infante-Duarte, C. & Nayak, R. C., 2013. The role of natural killer cells in multiple sclerosis and their therapeutic implications. *Frontiers in Immunology*, Volume 4, p. 63.
- Chen, J. J. et al., 2020. Optic neuritis in the era of biomarkers. *Survey of Ophthalmology*, 65(1), pp. 12-17.
- Chen, T. C. et al., 1996. Cellular uptake and transport of methylprednisolone at the blood-brain barrier. *Neurosurgery*, 38(2), pp. 348-354.



- Ciapă, M. A. et al., 2022. Optic Neuritis in Multiple Sclerosis—A Review of Molecular Mechanisms Involved in the Degenerative Process. *Current Issues in Molecular Biology*, 44(9), pp. 3959-3979.
- Cooper, M. A., Fehniger, T. A. & Caligiuri, M. A., 2001. The biology of human natural killer-cell subsets. *Trends in Immunology*, 22(11), pp. 633-640.
- Cooper, M. A. et al., 2001. Human natural killer cells: a unique innate immunoregulatory role for the CD56bright subset. *Blood*, 97(10), pp. 3146-3151.
- Davion, J.-B. et al., 2020. Asymptomatic optic nerve lesions: An underestimated cause of silent retinal atrophy in MS. *Neurology*, 94(23), pp. e2468-e2478.
- Ding, J. et al., 2020. The differential expression of natural killer cells in NMOSD and MS. *Journal of Clinical Neuroscience*, Volume 71, pp. 9-14.
- Fehniger, T. A. et al., 2003. CD56bright natural killer cells are present in human lymph nodes and are activated by T cell-derived IL-2: a potential new link between adaptive and innate immunity. *Blood*, 101(8), pp. 3042-3057.
- Flodström, M., Shi, F.-D., Sarvetnick, N. & Ljunggren, H.-G., 2002. The Natural Killer Cell – Friend or Foe in Autoimmune Disease?. *Scandinavian Journal of Immunology*, 55(5), pp. 432-441.
- Fogel, L. A., Yokoyama, W. M. & French, A. R., 2013. Natural killer cells in human autoimmune. *Arthritis Research & Therapy*, Volume 15, p. 216.
- Gani, T. T., Sandra, M. N., Mahayana, I. T. & Respatika, D., 2021. The predictor factor of final visual acuity (VA) of acute retrobulbar neuritis patients receiving optic neuritis treatment trial (ONTT) regiment. *Journal of the Medical Sciences*, 53(2), pp. 135-140.
- Gayoso, I. et al., 2011. Immunosenescence of human natural killer cells. *Journal of Innate Immunity*, 3(4), pp. 337-343.
- Gelati, M. et al., 2002. Methylprednisolone acts on peripheral blood mononuclear cells and endothelium in inhibiting migration phenomena in patients with multiple sclerosis. *Archives of Neurology*, 59(5), pp. 774-780.
- Ghezzi, A. et al., 2000. The prognosis of idiopathic optic neuritis. *Neurological Sciences*, 21(4 Suppl 2), pp. S865-9.



- Gross, C. C., Schulte-Mecklenbeck, A., Rünzi, A. & Wiendl, H., 2015. Impaired NK-mediated regulation of T-cell activity in multiple sclerosis is reconstituted by IL-2 receptor modulation. *PNAS*, 113(21), pp. E2973-E2982.
- Hajian-Tilaki, K., 2013. Receiver Operating Characteristic (ROC) Curve Analysis for Medical Diagnostic Test Evaluation. *Caspian Journal of Internal Medicine*, 4(2), pp. 627-635.
- Halstead, E. S. et al., 2013. Reduced frequency of CD56dim CD16pos natural killer cells in pediatric systemic inflammatory response syndrome/sepsis patients. *Pediatric Research*, Volume 74, pp. 427-432.
- Hanna, J. et al., 2006. Decidual NK cells regulate key developmental processes at the human fetal-maternal interface. *Nature Medicine*, 12(9), pp. 1065-1074.
- Hazeldine, J. & Lord, J. M., 2013. The impact of ageing on natural killer cell function and potential consequences for health in older adults. *Ageing Research Reviews*, 12(4), pp. 1069-1078.
- Healy, G. M. et al., 2020. The accuracy of standard multiple sclerosis MRI brain sequences for the diagnosis of optic neuropathy. *Multiple sclerosis and related disorder*, Volume 38, p. 101521.
- Herold, S. et al., 2015. Neurodegeneration in Autoimmune Optic Neuritis Is Associated with Altered APP Cleavage in Neurons and Up-Regulation of p53. *PLOS ONE*, pp. 1-17.
- Hickman, S. J., Dalton, C. M., Miller, D. H. & Plant, G. T., 2002. Management of acute optic neuritis. *Lancet*, 360(9349), pp. 1953-1962.
- Hickman, S. J. et al., 2004. A serial MRI study following optic nerve mean area in acute optic neuritis. *Brain: a journal of neurology*, 127(Pt11), pp. 2498-2505.
- Ho, H. et al., 2019. Retinal Nerve Fiber Layer Thickness in a Multiethnic Normal Asian Population. *American Academy of Ophthalmology*, Volume 126, pp. 702-711.



- Ishikawa, H. et al., 2019. Epidemiologic and Clinical Characteristics of Optic Neuritis in Japan. *American Academy of Ophthalmology*, Volume 126, pp. 1385-1398.
- Jin, J. et al., 2019. Glial pathology and retinal neurotoxicity in the anterior visual pathway in experimental autoimmune encephalomyelitis. *Acta Neuropathologica Communications*, Volume 7, p. 125.
- Jin, Y.-P. et al., 1998. Incidence of optic neuritis in Stockholm, Sweden 1990–1995: I. Age, sex, birth and ethnic-group related patterns. *Journal of the Neurological Sciences*, 159(1), pp. 107-114.
- Kennedy, C. & Carrol, F. D., 1960. Optic Neuritis in Children. *AMA archives of ophthalmology*, 63(5), pp. 747-755.
- Khalilpour, S. et al., 2017. Ischemic optic neuropathy as a model of neurodegenerative disorder: A review of pathogenic mechanism of axonal degeneration and the role of neuroprotection. *Journal of The Neurological Sciences*, Volume 375, pp. 430-441.
- Klein, S. L. & Flanagan, K. L., 2016. Sex differences in immune responses. *Nature Reviews Immunology*, Volume 16, p. 626–638.
- Kuhle, J. et al., 2019. Blood neurofilament light chain as a biomarker of MS disease activity and treatment response. *Neurology*, 92(10), pp. e1007-e1015.
- Kuhlmann, T. et al., 2008. Differentiation block of oligodendroglial progenitor cells as a cause for remyelination failure in chronic multiple sclerosis. *Brain : a journal of neurology*, 131(Pt 7), pp. 1749-1758.
- Langer-Gould, A. et al., 2011. Incidence of acquired CNS demyelinating syndromes in a multiethnic cohort of children. *Neurology*, 77(12), p. 1143–1148.
- Lee, J.-Y., Han, J., Yang, M. & Oh, S. Y., 2020. Population-based Incidence of Pediatric and Adult Optic Neuritis and the Risk of Multiple Sclerosis. *American Academy of Ophthalmology*, 127(3), pp. 417-425.



- Leussink, V. I. et al., 2001. High-Dose Methylprednisolone Therapy in Multiple Sclerosis Induces Apoptosis in Peripheral Blood Leukocytes. *58*(1), pp. 91-97.
- Lucchinetti, C. et al., 2000. Heterogeneity of multiple sclerosis lesions: implications for the pathogenesis of demyelination. *Annals of Neurology*, *47*(6), pp. 707-717.
- Lunemann, A. et al., 2011. Impaired IFN-g production and proliferation of NK cells in Multiple Sclerosis. *International Immunology*, pp. 139-148.
- Martínez-Lapiscina, E. H. et al., 2014. Is the incidence of optic neuritis rising? Evidence from an epidemiological study in Barcelona (Spain), 2008-2012. *Journal of Neurology*, *261*(4), pp. 759-767.
- Medeiros, F. A., 2017. Biomarkers and Surrogate Endpoints: Lessons Learned From Glaucoma. *Investigative Ophthalmology & Visual Science*, *58*(6), pp. BIO20-BIO26.
- Menon, V., Mehrotra, A., Saxena, R. & Jaffery, N. F., 2007. Comparative evaluation of megadose methylprednisolone with dexamethasone for treatment of primary typical optic neuritis. *Indian Journal of Ophthalmology*, *55*(5), pp. 355-359.
- Michel, T. et al., 2016. Human CD56bright NK Cells: An Update. *The Journal of Immunology*, *196*(7), pp. 2923-2931.
- Miller, D. et al., 2005. Clinically isolated syndromes suggestive of multiple sclerosis, part I: natural history, pathogenesis, diagnosis, and prognosis. *The Lancet Neurology*, *4*(5), pp. 281-288.
- Miller, D. H. et al., 1988. Magnetic resonance imaging of the optic nerve in optic neuritis. *Neurology*, *38*(2), pp. 175-179.
- Morandi, B., Bramanti, P., Bonaccorsi, I. & Montalto, E., 2008. Role of natural killer cells in the pathogenesis and progression of multiple sclerosis. *Pharmacological Research*, Volume 57, pp. 1-5.
- Morrow, S. A. et al., 2018. Effect of Treating Acute Optic Neuritis With Bioequivalent Oral vs Intravenous Corticosteroids: A Randomized Clinical Trial. *JAMA Neurology*, *75*(6), pp. 690-696.



- Müller-Durovic, B. et al., 2019. CD56-negative NK cells with impaired effector function expand in CMV and EBV co-infected healthy donors with age. *Aging*, 11(2), pp. 724-740.
- Nadhira, M. et al., 2018. Profil Peripheral Blood Mononuclear Cells (PBMC) Pasien dengan Berbagai Usia Menggunakan Flow Cytometry di Klinik Hayandra. *Jurnal AL-AZHAR INDONESIA SERI SAINS DAN TEKNOLOGI*, 4(4), pp. 208-216.
- Nahm, F. S., 2022. Receiver operating characteristic curve: overview and practical use for clinicians. *Korean Journal of Anesthesiology*, 75(1), pp. 25-36.
- Optic Neuritis Study Group, 2004. Visual function more than 10 years after optic neuritis: experience of the optic neuritis treatment trial. *American Journal of Ophthalmology*, 137(1), pp. 77-83.
- Optic Neuritis Study Group, 2008. Visual function 15 years after optic neuritis: a final follow-up report from the Optic Neuritis Treatment Trial. *Ophthalmology*, 115(6), pp. 1079-1082.e5.
- Paribrajaka, I. W. A. et al., 2024. *Neuritis optik idiopatik dengan penyerta central serous chorioretinopathy sebagai manifestasi chronic relapsing inflammatory optic neuropathy: Sebuah laporan kasus*, s.l.: Intisari Sains Medis.
- Park, K.-A., Oh, S. Y., Min, J.-H. & Kim, B. J., 2019. Incidence and timing of recurrence of optic neuritis. *Graefe's Archive for Clinical and Experimental Ophthalmology*, Volume 257, pp. 651-655.
- Pau, D. et al., 2011. Optic Neuritis. *Eye (London, England)*, 25(7), pp. 833-842.
- Pekny, M. & Pekna, M., 2014. Astrocyte reactivity and reactive astrogliosis: costs and benefits. *Physiological Reviews*, 94(4), pp. 1077-1098.
- Pérez-Cambrodí, R. J. et al., 2014. Optic neuritis in pediatric population: a review in current tendencies of diagnosis and management. *Journal of Optometry*, 7(3), pp. 125-130.
- Petzold, A. et al., 2017. Retinal layer segmentation in multiple sclerosis: a systematic review and meta-analysis. *The Lancet. Neurology*, 16(10), pp. 797-812.



- Petzold, A. et al., 2022. Diagnosis and classification of optic neuritis. *The Lancet Neurology*, Volume 21, pp. 1120-1134.
- Petzold, A. & Plant, G. T., 2014. Chronic relapsing inflammatory optic neuropathy: a systematic review of 122 cases reported. *Journal of Neurology*, 261(1), pp. 17-26.
- Petzold, A. et al., 2014. The investigation of acute optic neuritis: a review and proposed protocol. *Nature reviews. Neurology*, 10(8), pp. 447-458.
- Petzold, A., Wong, S. & Plant, G. T., 2016. Autoimmunity in visual loss. *Handbook of clinical neurology*, Volume 133, pp. 353-376.
- Phuljhele, S., Kedar, S. & Saxena, R., 2021. Approach to optic neuritis: An update. *Indian Journal of Ophthalmology*, 69(9), pp. 2266-2276.
- Pinti, M. et al., 2016. Aging of the immune system: Focus on inflammation and vaccination. *European Journal of Immunology*, 46(10), pp. 2286-2301.
- Redler, Y. & Levy, M., 2020. Rodent Models of Optic Neuritis. *Frontiers in neurology*, Volume 11, p. 580951.
- Rodrigues, M., A Siva, S. A. C., O'Brien, P. C. & Kurland, L. T., 1995. Optic neuritis: a population-based study in Olmsted County, Minnesota. *Neurology*, 45(2), pp. 244-250.
- Roncaroli, P. M. M. F. et al., 2016. A practical review of the neuropathology and neuroimaging of multiple sclerosis. *Practical Neurology*, 16(4), pp. 279-287.
- Saidha, S. et al., 2011. Visual dysfunction in multiple sclerosis correlates better with optical coherence tomography derived estimates of macular ganglion cell layer thickness than peripapillary retinal nerve fiber layer thickness. *Multiple Sclerosis*, 17(12), pp. 1449-1463.
- Saraste, M., Irjala, H. & Airas, L., 2007. Expansion of CD56Bright natural killer cells in the peripheral blood of multiple sclerosis patients treated with interferon-beta. *Neurology of Science*, Volume 28, pp. 121-126.
- Saux, G. L. & Schwartzman, M., 2018. Advanced Materials and Devices for the Regulation and Study of NK Cells. *International Journal of Molecular Sciences*, 20(3), p. 646.



- Shi, F.-D., Ljunggren, H.-G., Cava, A. L. & Kaer, L. V., 2011. Organ-specific features of natural killer cells. *Nature reviews. Immunology.*, 11(10), pp. 658-671.
- Sloka, J. & Stefanelli, M., 2005. The mechanism of action of methylprednisolone in the treatment of multiple sclerosis. *Sage Journals*, Volume 11, pp. 425-432.
- Soelberg, K. et al., 2018. Optical coherence tomography in acute optic neuritis: A population-based study. *Acta neurologica Scandinavica*, 138(6), pp. 566-573.
- Supatmo, Y., Susanto, H. & Sugiharto, 2015. Pengaruh Latihan terhadap Jumlah Sel Natural Killer (NK) Sebagai Indikator Kekebalan Tubuh Latihan. *Jurnal Media Ilmu Keolahragaan Indonesia*, 5(1), pp. 30-36.
- Talman, L. S. et al., 2010. Longitudinal study of vision and retinal nerve fiber layer thickness in multiple sclerosis. *Annals of Neurology*, 67(7), pp. 749-760.
- Thompson, A. J. et al., 2018. Diagnosis of multiple sclerosis: 2017 revisions of the McDonald criteria. *The Lancet, Neurology*, 17(2), pp. 162-173.
- Toosy, A. T., Mason, D. F. & Miller, D. H., 2014. Optic neuritis. *The Lancet. Neurology*, 13(1), pp. 83-99.
- Trapp, B. D., Bö, L., Mörk, S. & Chang, A., 1999. Pathogenesis of tissue injury in MS lesions. *Journal of Neuroimmunology*, 98(1), pp. 49-56.
- Traugott, U., 1985. Characterization and distribution of lymphocyte subpopulations in multiple sclerosis plaques versus autoimmune demyelinating lesions. *Springer Seminars in Immunopathology*, 8(1-2), pp. 71-95.
- Wakakura, M. et al., 1995. [Incidence of acute idiopathic optic neuritis and its therapy in Japan. Optic Neuritis Treatment Trial Multicenter Cooperative Research Group (ONMRG)]. *Nippon Ganka Gakkai Zasshi*, 99(1), pp. 93-97.



- Walzer, T., Jaeger, S., Chaix, J. & Vivier, E., 2007. Natural killer cells: from CD3(-)NKp46(+) to post-genomics meta-analyses. *Current Opinion in Immunology*, 19(3), pp. 365-372.
- Wattjes, M. P. et al., 2021. 2021 MAGNIMS-CMSC-NAIMS consensus recommendations on the use of MRI in patients with multiple sclerosis. *The Lancet. Neurology*, 20(8), pp. 653-670.
- Wingerchuk, D. M. et al., 2015. International consensus diagnostic criteria for neuromyelitis optica spectrum disorders. *Neurology Journals*, 85(2), pp. 177-189.
- Wu, G. F., Harp, C. R. P. & Shindler, K. S., 2015. Optic Neuritis: A Model for the Immuno-pathogenesis of Central Nervous System Inflammatory Demyelinating Diseases. *Current Immunology Reviews*, 11(2), pp. 85-92.
- Yandamuri, S. S. et al., 2020. High-throughput investigation of molecular and cellular biomarkers in NMOSD. *Neurology Neuroimmunology & Neuroinflammation*, Volume 7, p. e852.
- Yokoyama, W. M., Kim, S. & French, A. R., 2004. The dynamic life of natural killer cells. *Annual Review of Immunology*, Volume 22, pp. 405-429.
- Zhang, H., Weyand, C. M. & Goronzy, J. J., 2021. Hallmarks of the aging T-cell system. *The FEBS Journal*, 288(24), pp. 7123-7142.
- Zhang, Q. et al., 2024. Therapeutic potential of natural killer cells in neuroimmunological diseases. *Biomedicine & Pharmacotherapy*, Volume 173, p. 116371.
- Zhou, X.-H., Obuchowski, N. A. & McClish, D. K., 2011. *Medicine, Statistical Methods in Diagnostic*. Wiley Series in Probability and Statistics penyunt. s.l.: John Wiley & Sons, Inc..