



DAFTAR PUSTAKA

- Albers, J.W., Herman, W.H., Pop-Busui, R., Feldman, E., Martin, C.L., Cleary, P.A., et al. 2010. Effect of Prior Intensive Insulin Treatment During the Diabetes Control and Complications Trial (DCCT) on Peripheral Neuropathy in Type 1 Diabetes During the Epidemiology of Diabetes Interventions and Complications (EDIC) Study. *Diabetes Care*; 33:1090–1096.
- Albers, J.W., Pop-Busui, R. 2014. Diabetic Neuropathy: Mechanisms, Emerging Treatments, and Subtypes. *Curr Neurol Neuroscience*; 14(8): 473.
- Ambrose, J.A., Barua, R.S. 2004. The pathophysiology of cigarette smoking and cardiovascular disease: an update. *Journal of the American College of Cardiology*; Vol. 43: 10. DOI:10.1016/j.jacc.2003.12.047
- Arimura, A., Deguchi, T., Sugimoto, K., Uto, T., Nakamura, T., Arimura, Y. et al. 2013. Intraepidermal nerve fiber density and nerve conduction study parameters correlate with clinical staging of diabetic polyneuropathy. *Diabetes research and clinical practice*; 99: 24–29.
- ASH, 2009. Fact Sheet on: Smoking and Diabetes. *Action on Smoking and Health*. Available at: www.ash.org.uk.
- Asmedi, A., Wibowo, W., Meliala, L. 2015. H-reflex amplitude depression as a marker of presynaptic inhibition in Painful Diabetic Neuropathy. *Journal of Medical Science*; 47(1): 28-35
- Baba M., Ozaki I. 2001. Electrophysiological changes in diabetic neuropathy: from subclinical alterations to disabling abnormalities. *Arch Physiol Biochem*; 109(3): 234-240.
- Bahou, Y.G. 2007. A clinical and electrodiagnostic study of diabetic neuropathy at Jordan University Hospital. *Neurosciences*; 12 (3): 215-220.
- Balduccia, S., Iacobellis G., Parisic, L., Di Biasea, N., Calandrielloa, E., Leonetti, F., Fallucca, F. 2006. Exercise training can modify the natural history of diabetic peripheral neuropathy. *Journal of Diabetes and Its Complications*; 20: 216– 223
- Baratawidjaja, K.G. & Rengganis, I. 2012. Imunologi Dasar Edisi ke-10. Badan Penerbit Fakultas Kedokteran Universitas Indonesia. Jakarta.
- Barbosa A.P., Medina J.L., Ramos E.P., Barros H.P. 2001. Prevalence and risk factors of clinical diabetic polyneuropathy in a Portuguese primary health care population. *Diabetes Metabolism*; 27(4): 496-502.
- Basuki, M. 2003. Anatomi dan Fisiologi. Petunjuk Praktis Elektrodiagnostik. Bagian Ilmu Penyakit Saraf Fakultas Kedokteran Universitas Airlangga SMF RSU DR. Sutomo, Surabaya.



- Biyik M, Ucar R, Solak Y, Gungor G, Polat I, Gaipov A, et al. (2013). Blood neutrophil-to-lymphocyte ratio independently predicts survival in patients with liver cirrhosis. *European journal of gastroenterology & hepatology*, 25(4):435–41.
- Boffetta, P., McLerran, D, Chen, Y, Inoue, M., Sinha, R., He, J., Gupta, P.C. et al 2011. Body Mass Index and Diabetes in Asia: A Cross-Sectional Pooled Analysis of 900,000 Individuals in the Asia Cohort Consortium. *PloS ONE* 6(6): e19930
- Booya F., Bandarian F., Larijani B., Pajouhi M., Nooraei M., Lotfi J. 2005. Potential risk factors for diabetic neuropathy: a case control study. *BMC Neurology*; 10: 5-24.
- Boulton A.J. 2005. Management of Diabetic Peripheral Neuropathy. *Clinical Diabetes*; 23(1): 9-15.
- Boulton, A.J.M., Malik, R.A., Arezzo, J.C., Sosenko, J.M. 2004. Diabetic Somatic Neuropathies. *Diabetes care*; 27(6).
- Bril, V., Perkins, B.A. 2002. Validation of the Toronto Clinical Scoring System for Diabetic Polyneuropathy. *Diabetes Care*; 25:2048–2052.
- Brown, S.J., Handsaker, J.C., Bowling, F.L., Boulton, A.J.M., Reeves, N.D. 2015. Diabetic Peripheral Neuropathy Compromises Balance During Daily Activities. *Diabetes Care*; 15.
- Brownlee, M. 2005. The pathobiology of diabetic complications: a unifying mechanism. *Diabetes*; vol. 54(6): 1615–1625.
- Callaghan, B.C., Cheng, H., Stables, C.L., Smith, A.L., Feldman, E.L. 2012. Diabetic neuropathy: Clinical manifestations and current treatments. *Lancet Neurol*; 11(6): 521–534.
- Callaghan, B.C., Xia, R., Banerjee, M., De Rekeneire, N., Harris, T.B., Newman, A.B., et al. 2016. Metabolic Syndrome Components Are Associated With Symptomatic Polyneuropathy Independent of Glycemic Status. *Diabetes Care*; 39:801–807
- Casellini, C.M., Parson, H.K., Richardson, M.S., Nevoret, M.L., Vinik, A.I. 2013. Sudoscan, a Noninvasive Tool for Detecting Diabetic Small Fiber Neuropathy and Autonomic Dysfunction. *Diabetes Technology and Therapeutics*; 15: 11. DOI: 10.1089/dia.2013.0129.
- Chang, S.A. 2012. Smoking and Type 2 Diabetes Mellitus. *Diabetes and Metabolism Journal*; 36:399-403.
- Charles, M., Fleischer, J., Witte, D.R., Ejekjaer N., Borch-Johnsen, K., Lauritzen, T., Sandbaek, A. 2013. Impact of early detection and treatment of diabetes on the 6-year prevalence of cardiac autonomic neuropathy in people with screen-detected diabetes: ADDITION-Denmark, a cluster-randomised study. *Diabetologia*: 56:101–108



- Chen, X., Graham, J., Dabbah, M.A., Petropoulos, I.N., Ponirakis, G., Asghar, O. *et al.* 2015. Small Nerve Fiber Quantification in the Diagnosis of Diabetic Sensorimotor Polyneuropathy: Comparing Corneal Confocal Microscopy With Intraepidermal Nerve Fiber Density. *Diabetes Care*; 38:1138–1144. DOI: 10.2337/dc14-2422
- Chichkova, R.I., & Katzin, L. 2010. EMG and Nerve Conduction Studies in Clinical Practice. *Practical Neurology*; 10
- Christianson, J.A., Ryals, J.M., Johnson, M.S., Dobrowsky, R.T., Wright, D.E. 2007. Neurotrophic modulation of myelinated cutaneous innervation and mechanical sensory loss in diabetic mice. *Neuroscience*; 145:303–313.
- Chua, W., Charles, K.A., Baracos, V.E., Clarke, S.J. 2011. Neutrophil/lymphocyte ratio predicts chemotherapy outcomes in patients with advanced colorectal cancer. *British journal of cancer*, 104(8):1288–95.
- Chung, J.H., Lim, J., Jeong, J.H., Kim, K.R., Park, C.W., Lee, S.H. 2015. The significance of neutrophil to lymphocyte ratio and platelet to lymphocyte ratio in vestibular neuritis. *Laryngoscope*, 125(7):E257–E261.
- Chung, S.S.M., Ho, E.C.M., Lam, K.S.L., Chung, S.K. 2003. Contribution of polyol pathway to diabetes-induced oxidative stress. *Journal of the American Society of Nephrology*; vol. 14(3): S233–S236.
- Clair C, Cohen MJ, Eichler F. 2015. The effect of cigarette smoking on diabetic peripheral neuropathy: a systematic review and meta-analysis. *Journal of General Internal Medicine*; 30:1193–203.
- Cornblath, D.R. 2004. Diabetic neuropathy: diagnostic methods. *Adv Stud Med*; 4(8A):S650-S661.
- D'Amato, C., Morganti1, R., Greco, C., et al. 2016. Diabetic peripheral neuropathic pain is a stronger predictor of depression than other diabetic complications and comorbidities. *Diabetes & Vascular Disease Research*; 1–11
- D'Souza, M., Kulkarni, V., Bhaskaran, U., Ahmed, H., Naimish, H., Prakash, A., *et al.* 2015. Diabetic peripheral neuropathy and its determinants among patients attending a tertiary health care centre in Mangalore, India. *Journal of Public Health Research*; 4:450
- Dahlan, M.S. 2016. Menentukan Besar Sampel, dalam Langkah-langkah membuat proposal penelitian bidang kedokteran dan kesehatan seri Evidence Based Medicine, Edisi 2:79-98. Sagung Seto, Jakarta.
- Davies, M., Brophy, S., Taylor, A. 2006. Painful Diabetic Peripheral Neuropathy in Type 2 Diabetes. *Diabetes Care*; 29:1518–1522
- Dorsey R.R., Eberhardt M.S., Gregg E.W., Geiss L.S. 2009. Control of risk factors among people with diagnosed diabetes, by lower extremity disease status. *Previous Chronic Disease*; 6(4): 114.



- Doupis, J., Lyons, T.E., Wu, S., Gnardellis, C., Dinh, T., Veves, A. 2009. Microvascular Reactivity and Inflammatory Cytokines in Painful and Painless Peripheral Diabetic Neuropathy. *J Clin Endocrinol Metab*; 94: 2157–2163.
- Dyck, P.J., O'Brien, P.C., Litchy, W.J., Harper, C.M., Klein, C.J., 2005. Monotonicity of nerve tests in diabetes: subclinical nerve dysfunction precedes diagnosis of polyneuropathy. *Diabetes Care*, 28 : 2192-2200.
- Edwards, J.L., Vincent, A.M., Cheng, H.T., Feldman, E.L. 2008. Diabetic neuropathy: mechanism to management. *Pharmacology and Therapeutics*; 120:1-34.
- El-Salem K., Ammari F., Khader Y., Dhaimat O. 2009. Elevated glycosylated hemoglobin is associated with subclinical neuropathy in neurologically asymptomatic diabetic patients: a prospective study. *Journal of Clinical Neurophysiology*; 26(1): 50-53.
- England, J.D., Gronseth, G.S., Franklin, G. 2005. Distal symmetric polyneuropathy: a definition for clinical research. *Neurology*; 64:199-207.
- Farmer, K.L., Li, C., Dobrowsky, R.T. 2012. Diabetic Peripheral Neuropathy: Should a Chaperone Accompany Our Therapeutic Approach? *Pharmacol Rev*; 64:880–900.
- Fioretto, P., Dodson, P.M., Ziegler, D., Rosenson, R.S. 2010. Residual microvascular risk in diabetes: unmet needs and future directions. *Nat. Rev. Endocrinol*; 6: 19–25.
- Franconi, F., Campesi, I., Occhioni, S., Tonolo, G. 2012. Sex-Gender Differences in Diabetes Vascular Complications and Treatment. *Endocrine, Metabolic & Immune Disorders-Drug Targets*; 12:179-196
- Geffari, M.A. 2012. Comparison of different screening tests for diagnosis of diabetic peripheral neuropathy in Primary Health Care setting. *International Journal of Health Sciences, Qassim University*; Vol. 6 (2)
- Giacco, F., Brownlee, M. 2010. Oxidative stress and diabetic complications. *Circulation Research*; vol. 107 (9): 1058–1070.
- Guler, S., Berker, D., Atasoy, H.S.T., Akyr, B., Uysal, H., Aral, Y. 2000. Electrophysiological Changes in Patients with Impaired Glucose Tolerance. *Turkish Journal of Endocrinology and Metabolism*; 4: 123-128
- Guthrie, G.J.K., Charles, K.A., Roxburgh, C.S.D., Horgan, P.G., McMillan, D.C., Clarke, S.J. 2013. The systemic inflammation-based neutrophil-lymphocyte ratio: Experience in patients with cancer. *Critical Reviews in Oncology/Hematology*, 88(1):218–230.
- Halsbeck, M., Luft, D., Neundorfer, B., Stracke, H., Ziegler, D. 2004. The Therapy and Follow-up of Sensorimotor Diabetic Neuropathy Diagnosis. *Therapy and Follow-up of Diabetic Neuropathy-ed2*.



- Herman, W.H., Pop-Busui, R., Briffett, B.H., Martin, C.L., Cleary, P.A., Albers, J.W., Feldman, E.L. 2012. Use of the Michigan Neuropathy Screening Instrument as a measure of distal symmetrical peripheral neuropathy in Type 1 diabetes: results from the Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications. *Diabet Med*; 29(7): 937–944. doi:10.1111/j.1464-5491.2012.03644.x.
- Huang, C.C., Chen, T.W., Weng, M.C., Lee, C.L., Tseng, H.C., Huang, M.H. 2005. Effect of glycemic control on electrophysiologic changes of diabetic neuropathy in type 2 diabetic patients. *Kaohsiung Journal Medical Science*; 21: 15-21
- Hussain, G., Rizvi, S.A.A., Singhal, S., Zubair, M., Ahmad, J. 2013. Cross sectional study to evaluate the effect of duration of type 2 diabetes mellitus on the nerve conduction velocity in diabetic peripheral neuropathy. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*; DSX-300 (5)
- Im, S., Kim, S.R., Park, J.H., Kim, Y.S., Park, G.Y. 2012. Assessment of the medial dorsal cutaneous, dorsal sural, and medial plantar nerves in impaired glucose tolerance and diabetic patients with normal sural and superficial peroneal nerve responses. *Diabetes Care*; 35:834-839.
- Intiaz F, Shafique K, Mirza SS, Ayoob Z, Vart P, Rao S. (2012). Neutrophil lymphocyte ratio as a measure of systemic inflammation in prevalent chronic diseases in Asian population. *International archives of medicine*, 5(1):2.
- Ishpeková, B.A., Muradyan, N.M., Alexandrov, A.S. 2005. Electrophysiological studies in diabetic neuropathy. *American Association of Neuromuscular & Electrodiagnostic Medicine/Clinical Neurophysiology*; 116:e133-e159.
- Ismail-Beigi, F., Craven, T., Banerji, M., Basile, J., Calles, J., Cohen, R., et al. 2010. Effect of intensive treatment of hyperglycemia on microvascular complications of type 2 diabetes in ACCORD: a randomized trial. *Lancet*; 376(9739): 419–430
- Jin, S.M., Noh, C.I., Yang, S.W., Bae, E.J., Shin, C.H., Chung, H.R., et al. 2008. Endothelial Dysfunction and Microvascular Complications in Type 1 Diabetes Mellitus. *J Korean Med Sci* 2008; 23: 77-82. DOI: 10.3346/jkms.2008.23.1.77
- Kahraman, C., Kahraman, N.C., Aras, B., Coşgun, S., Gülcen, E. 2016. The relationship between neutrophil-to-lymphocyte ratio and albuminuria in type 2 diabetic patients: a pilot study. *Arch Med Sci*; 12, 3: 571–575
- Kahraman, C., Yümün, G., Kahraman, N.C., Namdar, N.D., Cosgun, S. 2014. Neutrophil-to-lymphocyte ratio in diabetes mellitus patients with and without diabetic foot ulcer. *European Journal of Medical Sciences*; 1(1): 8-13



- Kamela, S.R., Hamdy, M., Omara, H.A.S.A., Kamalb, A., Alic, L.H., Elkarmi, A.H.A. 2015. Clinical diagnosis of distal diabetic polyneuropathy using neurological examination scores: correlation with nerve conduction studies. *Egyptian Rheumatology & Rehabilitation*; 42:128–136
- Kampoli, A.M., Tousoulis, D., Briasoulis, A. 2011. Potential pathogenic inflammatory mechanisms of endothelial dysfunction induced by type 2 diabetes mellitus. *Current Pharmacology*; 17:4147–58
- Karsidag S., Moral S., Sargin M., Salman S., Karsidag K., Us O. 2005. The electrophysiological findings of subclinical neuropathy in patients with recently diagnosed type 1 diabetes mellitus. *Diabetes Res and Clinical Practice*; 211–219.
- Kawano, K. 2014. A Current Overview of Diabetic Neuropathy—Mechanisms, Symptoms, Diagnosis, and Treatment. *Diabetes Care*; DOI: 10.5772/58308.
- Krishna, B.H, Reddy, M., Singh, S.B., Kala, S., Kumar, K., Uma, H., Vijetha, Keerthi, S. 2014. Cardiovascular autonomic neuropathy in diabetics; Correlation with duration of diabetes. *Biomedical Research*; 25(3): 307-310
- Liu, S., Zheng, H., Zhu, X., Mao, F., Zhang, S., Shi,H., Li, Y., Lu, B. 2017. Neutrophil-to-lymphocyte ratio is associated with diabetic peripheral neuropathy in type 2 diabetes patients. *Diabetes Research and Clinical Practice*.
- Lois, K., McTeman, P., Kumar, S. 2009. Pathophysiology of obesity-induced T2DM. In: Barnett, H., Kumar, S., ed. *Obesity and diabetes*. Wiley-Blackwell. Chichester. p. 47–67
- Lupachyk, S., Watcho, P., Hasanova, N. 2012. Triglyceride, nonesterified fatty acids, and prediabetic neuropathy: role for oxidative–nitrosative stress. *Free Radical Biology Medicine*; 52:1255–63
- Ma, Y., Mao, Y., He, X., Sun, Y., Huang, S., Qiu, J. 2016. The values of neutrophil to lymphocyte ratio and platelet to lymphocyte ratio in predicting 30 day mortality in patients with acute pulmonary embolism. *BMC Cardiovascular Disorders*; 16:123.
- Meijer, J.W., Bosma, E., Lefrandt, J.D., Links, T.P., Smit, A.J., Stewart, R.Y. 2003. Clinical Diagnosis of Diabetic Polyneuropathy With the Diabetic Neuropathy Symptom and Diabetic Neuropathy Examination Scores. *Diabetes Care*; 26: 697–701.
- Mojaddidi, M.A., Aboonq, M., Al Nozha, O.M., Allam, A., El-Bab, M.F. 2011. Early Diagnosis of Diabetic Neuropathy in Almadinah Almunawwarah. *Journal of Taibah University Medical Sciences*; 6(2): 121-131.
- Morkrid, K., Ali, L., Hussain, A. 2010. Risk factors and prevalence of diabetic peripheral neuropathy: A study of type 2 diabetic outpatients in



Bangladesh. International Journal of Diabetes in Developing Countries; 30 (1)

- Muntean, C., Cătălin, B., Tudorică, V., Moța, M. 2016. Efficiency of Michigan Neuropathy Screening Instrument and Nerve Conduction Studies for Diagnosis of Diabetic Distal Symmetric Polyneuropathy. *Romania Journal of Diabetes Nutritional and Metabolic Disease*;23(1):055-065
- Ozturk, Z.A., Kuyumcu, M.E., Yesil, Y., Savas, E., Yıldız, H., Kepekci, Y., Ariogul. S. 2013. Is there a link between neutrophil-lymphocyte ratio and microvascular complications in geriatric diabetic patients? *J. Endocrinol. Invest*; 36: 593-599. DOI: 10.3275/8894.
- Pacher, P., Beckman, J., Liaudet, L. 2007. Nitric Oxide and Peroxynitrite in Health and Disease. *Physiology Reviews*; 87(1): 315-424.
- Pandya, N.H., Desai, K.S., Goswami, T.M., Patel, V.N., Mevada, A.K., Suthar, M.N. 2013. Electrophysiological changes in sensorimotor nerves in diabetes mellitus & usefulness of nerve conduction studies for early diagnosis of diabetic neuropathy. *International Journal of Biomedical And Advance Research*; 13: 04 (03)
- Papanas, N. & Ziegler, D. 2015. Risk Factors and Comorbidities in Diabetic Neuropathy: An Update 2015. *The Review of Diabetic Studies*; 12:1-2.
- Polat O, Yavas GF, Inan S, Inan UU. (2015). Neutrophil-to-Lymphocyte Ratio as a Marker in Patients with Non-arteritic Anterior Ischemic Optic Neuropathy :382–387.
- Pop-Busui R., Lu J., Lopes N., Teresa L.Z., Jones. 2009. Prevalence of diabetic peripheral neuropathy and relation to glycemic control therapies at baseline in the BARI 2D cohort. *Journal of Peripheral Nerve System*; 14: 1–13.
- Pop-Busui, R., Boulton, A.J.M., Feldman, E.L., Bril, V., Freeman, R., Malik, R.A., Sosenko, J.M., Ziegler, D. 2017. Diabetic Neuropathy: A Position Statement by the American Diabetes Association. *Diabetes Care*; 40:136–154. DOI: 10.2337/dc16-2042.
- Rajiv A., Gandhi, Jefferson, L.B., Marques, D., Selvarajah, D., Emery, C., et al. 2010. Painful Diabetic Neuropathy Is Associated With Greater Autonomic Dysfunction Than Painless Diabetic Neuropathy. *Diabetes Care*; 33:1585–1590.
- Renna, M., Bento, C.F., Fleming, A., Menzies, F.M., Siddiqi, F.H., Ravikumar, B. et al. 2013. IGF-1 receptor antagonism inhibits autophagy. *Hum Mol Genetic*; 22: 4528–4544
- Rolo, A.P., Palmeira, C.M. 2006. Diabetes and mitochondrial function: role of hyperglycemia and oxidative stress. *Toxicology and Applied Pharmacology*; vol. 212 (2): 167–178.



- Sabanayagam C., Liew G., Tai E.S. 2009. Relationship between glycated haemoglobin and microvascular complications: is there a natural cut-off point for the diagnosis of diabetes? *Diabetologia*; 52: 1279–1289.
- Sahin, S. Karsidag, S., Ayalp, S., Sengul, A., Us, O., Karsidag, K. 2009. Determination of nerve conduction abnormalities in patients with impaired glucose tolerance. *Neurol Sci*; 30:281-9.
- Said, G. 2007. Diabetic Neuropathy-A review. *Nat Clin Pract Neurol.*; 3(6): 331-340.
- Sandireddy, R., Yerra, V.G., Areti, A., Komirishetty, P., Kumar, A. 2014. Neuroinflammation and Oxidative Stress in Diabetic Neuropathy: Futuristic Strategies Based on These Targets. *International Journal of Endocrinology*; 2014: 1-10.
- Sawant, A.C., Adhikari, P., Narra, S.R., Srivatsa, S.S., Mills, P.K., Srivatsa, S.S. 2014. Neutrophil to lymphocyte ratio predicts short- and long-term mortality following revascularization therapy for ST elevation myocardial infarction. *Cardiol J*; 21: 500-508. doi:10.5603/CJ.a2013.0148 PMID:24142685
- Shi, X., Chen, Y., Nadeem, L., Xu, G. 2013. Beneficial effect of TNF- α inhibition on diabetic peripheral neuropathy. *Journal of Neuroinflammation*; 10: 69.
- Shiny, A., PhD, Bibin, Y.S., Shanthirani, C.S., Regin, B.S., Anjana, R.M., MD, Balasubramanyam, M., Jebarani, S., Mohan, V., 2014. Association of Neutrophil-Lymphocyte Ratio with Glucose Intolerance: An Indicator of Systemic Inflammation in Patients with Type 2 Diabetes. *Diabetes Technology and Therapeutics*; 16:8. DOI: 10.1089/dia.2013.0264
- Singh, R.B., Chandel, K., Kumar, S. 2015. Nerve conduction study findings of subclinical diabetic neuropathy in newly diagnosed diabetic patients. *Indian Journal of Neurosciences*; 1(1):1-7
- Skärstrand, H., Dahlin, L.B., Lernmark, A., Vaziri-Sani, F. 2013. Neuropeptide Y autoantibodies in patients with long-term type 1 and type 2 diabetes and neuropathy. *Journal of Diabetes and Its Complications*; 27: 609–617.
- Smith, A.G., Lessard, M., Reyna, S., Doudova, BM., Singleton, J.R. 2014. The Diagnostic Utility of Sudoscan for Distal Symmetric Peripheral Neuropathy. *Diabetes Complications*; 28(4): 511–516. doi:10.1016/j.jdiacomp.2014.02.013
- Smith, A.G., Russel, J., Feldman, E.L., Goldstein, J., Pelthier, A., Smith, S., et al. 2006. Lifestyle Intervention for Pre-Diabetic Neuropathy. *Diabetes Care*; 29 (6).
- Smith, A.G., Singleton, J.R. 2012. Diabetic Neuropathy. *Continuum Lifelong Learning Neurol*; 18(1): 60–84.
- Soskic, S.S., Dobutović, B.D., Sudar, E.M. 2011. Regulation of inducible Nitric Oxide synthase (iNOS) and its potential role in insulin resistance, diabetes



and heart failure. *Open Cardiovascular Medicine Journal*; vol. 5 (1): 153–163

Takeuchi, M., Takino, J.I., Yamagishi, S.I. 2010. Involvement of the toxic AGEs (TAGE)-RAGE system in the pathogenesis of diabetic vascular complications: a novel therapeutic strategy. *Current Drug Targets*; vol. 11(11): 1468–1482.

Tesfaye, S., Boulton, A.J., Dyck, P.J. 2010. Diabetic neuropathies: update on definitions, diagnostic criteria, estimation of severity and treatments. *Diabetes Care*; 33(10): 2285–2293

Tesfaye, S.C., Eaton S.E.M., Simon E.M., Eaton, D.M., Ward, J.D., Manes C. 2005. Vascular risk factors and diabetic neuropathy. *N Engl J Med*; 352:341-50.

Tesyafe, S. and Selvarajah, D. 2012. Advances in the epidemiology, pathogenesis and management of diabetic peripheral neuropathy. DIABETES/METABOLISM RESEARCH AND REVIEWS. *Diabetes Metab Res Rev*; 28(Suppl 1): 8–14.

Thrainsdottir, S., 2009. Peripheral polyneuropathy in type 2 diabetes mellitus and impaired glucose tolerance: correlations between morphology, neurophysiology, and clinical findings. Sweden: Department of Clinical Sciences, Malmö, Neurology, Lund University.

Trippé, Bruce. 2009. The Prevalence, Severity, and Impact of Diabetic Peripheral Neuropathy: The Forgotten Complication and New Therapeutic Approaches. *Review of Endocrinology*; I;09

Ulu, S.M., Dogan, M., Ahsen, A., Altug, A., Demir, K., Acarturk, G., Inan, S. 2013. Neutrophil-to-Lymphocyte Ratio as a Quick and Reliable Predictive Marker to Diagnose the Severity of Diabetic Retinopathy. *Diabetes Technology and Therapeutics*; 15:11.

Várkonyi T., Kempfer P. 2008. Diabetic neuropathy: new strategies for treatment. *Diabetes Obesity Metabolism*; 10(2): 99-108.

Vincent, A.M., Callaghan, B.C., Andrea L. Smith, A.L., and Eva L. Feldman, E.L. 2011. Diabetic neuropathy: cellular mechanisms as therapeutic targets. *Nature Reviews Neurology*; 7, 573–583. DOI:10.1038/nrneurol.2011.137.

Vincent, A.M., Edwards, J.L., McLean, L.L. 2010. Mitochondrial biogenesis and fission in axons in cell culture and animalmodels of diabetic neuropathy. *Acta Neuropathologica*; vol. 120 (4): 477–489

Vinik, A.I., Nevoret, M., Casellini, C., Parson, H. 2013. Diabetic Neuropathy. *Endocrinol Metab Clin N Am*; 42: 747–787. DOI: 10.1016/j.ecl.2013.06.001

Virdis, A. 2016. Endothelial Dysfunction in Obesity: Role of Inflammation. *High Blood Press Cardiovasc Prev*. DOI: 10.1007/s40292-016-0133-8



- Viswanathan, V., Seena, R., Nair, M.B., Snehalatha, C., Bhoopathy, R.M., Ramachandran, A. 2004. Nerve conduction abnormalities in different stages of glucose intolerance. *Neurology India*; 52(4)
- Wang, R.T., Zhang, J.R., Li, Y., Liu, T., Yu, K.J. 2015. Neutrophil-Lymphocyte ratio is associated with arterial stiffness in diabetic retinopathy in type 2 diabetes. *J Diabetes Complications*; 29(2): 245–249. doi: 10.1016/j.jdiacomp.2014.11.006.
- Wiggin T.D., Sullivan K.A., Pop-Busui R., Amato A., Sima A.A., Feldman E.L. 2009. Elevated triglycerides correlate with progression of diabetic neuropathy. *Diabetes*; 58(7): 1634-1640
- Wu S., He, R., Xiong, K. 2012. Detrimental impact of hyperlipidemia on the peripheral nervous system. *Neural Regeneration Research*; 7(5): 392-399
- Xu, T., Weng, Z., Pei, C., Yu, S., Chen, Y., Guo, W., et al. 2017. The relationship between neutrophil-tolymphocyte ratio and diabetic peripheral neuropathy in Type 2 diabetes mellitus. *Medicine*; 96:45
- Yagihashi, S., Mizukami, H., Sugimoto, K. 2011. Mechanism of diabetic neuropathy: Where are we now and where to go. *Journal of Diabetes Investigation*.
- Yilmaz, H., Ucan, B., Sayki, M., Unsal, I., Sahin, M., Ozbek, M., Delibasi, T. 2014. Usefulness of the neutrophil-to-lymphocyte ratio to prediction of type 2 diabetes mellitus in morbid obesity. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*; DSX-386:6
- Yerra, V.G., Negi,G., Sharma, S.S., Kumar, A. 2013. Potential therapeutic effects of the simultaneous targeting of the Nrf2 and NF- κ B pathways in diabetic neuropathy. *Redox Biology*; 1: 394–397.
- Zamroni, Asmedi, A., Nuradyo, D. 2013. Uji Reliabilitas dan validitas *Neuropathy Symptom Score* (NSS) dan *Neuropathy Deficit Score* (NDS) sebagai Skor Diagnostik Neuropati Diabetik. Bagian Neurologi Fakultas Kedokteran Universitas Gadjah Mada Yogyakarta.
- Ziegler, D., Rathmann, W., Haastert, B. et al. 2005. Prevalence of polyneuropathy in impaired glucose tolerance and diabetes. The MONICA/KORA Augsburg Surveys and Myocardial Infarction Registry (KORA-A Study). *Diabetologia*; 48(suppl 1):A364-A365.
- Zilliox, L.A., Ruby, S.K., Singh, S., Zhan, M., Russell, J.W. 2015. Clinical Neuropathy Scales in Neuropathy Associated with Impaired Glucose Tolerance. *J Diabetes Complications*; 29(3): 372–377. DOI: 10.1016/j.jdiacomp.2015.01.011.
- Zoungas, S., Woodward, M., Li, Q., Cooper, M.E., Hamet, P., Harrap, S., Heller, S., Marre, M., Patel, A., Poulter, N., William, B., Chalmers, J. 2014. Impact of age, age at diagnosis and duration of diabetes on the risk of



**KORELASI RASIO NEUTROFIL LIMFOSIT DENGAN BEBERAPA PARAMETER ELEKTRODIAGNOSTIK
PADA NEUROPATI PERIFER**

DIABETIK

ADITYA PUTRA P, Dr.dr. Ahmad Asmedi, M.Kes.Sp.S(K).; Prof. Dr. dr. Samekto Wibowo, P.Fark., Sp.FK, Sp.S(K)

UNIVERSITAS
GADJAH MADA

Universitas Gadjah Mada, 2018 | Diunduh dari <http://etd.repository.ugm.ac.id/>

macrovascular and microvascular complications and death in type 2 diabetes. *Diabetologia*; 57:2465-2474