DAFTAR PUSTAKA

Adelita, M., Arto, K.S., dan Deliana, M. 2020. Kontrol metabolik pada diabetes melitus tipe-1. *Cermin Dunia Kedokteran*, 47(3), p.227-232.

Al-Awar, A., Kupai, K., Veszelka, M., Szucs, G., Attieh, Z., Murlasits, Z., *et al*. 2016. Experimental diabetes mellitus in different animal models. *Journal of Diabetes Research*, 2016(1), p.9051426.

American Diabetes Association. 2019. Standards of medical care in diabetes—2019 abridged for primary care providers. *Clinical Diabetes: a Publication of The American Diabetes Association*, 37(1), p.11.

Ansari, M.G.A., Sabico, S., Clerici, M., Khattak, M.N.K., Wani, K., Al-Musharaf, S., *et al*. 2020. Vitamin D supplementation is associated with increased glutathione peroxidase-1 levels in arab adults with prediabetes. *Antioxidants*, 9(2), p.118.

Arfian, N., Muflikhah, K., Soeyono, S.K., Sari, D.C.R., Tranggono, U., Anggorowati, N., *et al*. 2016. Vitamin D attenuates kidney fibrosis via reducing fibroblast expansion, inflammation, and epithelial cell apoptosis. *Kobe Journal of Medical Sciences*, 62(2), p.E38.

Asmat, U., Abad, K., dan Ismail, K. 2016. Diabetes mellitus and oxidative stress—A concise review. *Saudi Pharmaceutical Journal*, 24(5), p.547-553.

Baqarizky, F. 2015. Studi awal: gambaran histopatologik pankreas, hepar, dan ginjal tikus diabetes mellitus yang diinduksi streptozotocin dengan pewarnaan hematoksilin eosin. *Skripsi*. UIN Syarif Hidayatullah Jakarta: Fakultas Kesehatan dan Ilmu Kesehatan.

Barchetta, I., Del Ben, M., Angelico, F., Di Martino, M., Fraioli, A., La Torre, G., *et al.* 2016. No effects of oral vitamin D supplementation on non-alcoholic fatty liver disease in patients with type 2 diabetes: a randomized, double-blind, placebo-controlled trial. *BMC Medicine*, 14, p.1-10.

Barrett, K.E. 2019. Ganong's review of medical physiology. *McGraw Hill Education*.

Bataller, R., dan Brenner, D.A. 2005. Liver fibrosis. *The Journal of Clinical Investigation*, 115(2), p.209-218.

Beilfuss, A., Sowa, J.P., Sydor, S., Beste, M., Bechmann, L.P., Schlattjan, M., *et al*. 2015. Vitamin D counteracts fibrogenic TGF-β signalling in human hepatic stellate cells both receptor-dependently and independently. *Gut*, 64(5), p.791-799.

Berridge, M.J. 2015. Vitamin D cell signalling in health and disease. *Biochemical and Biophysical Research Communications*, 460(1), p.53-71.

Cao, Y., Shu, X.B., Yao, Z., Ji, G., dan Zhang, L. 2020. Is vitamin D receptor a druggable target for non-alcoholic steatohepatitis?. *World Journal of Gastroenterology*, 26(38), p.5812.

Chikezie, P.C., Ojiako, O.A., dan Ogbuji, A.C. 2015. Oxidative stress in diabetes mellitus. *International Journal of Biological Chemistry*, 9(3), p.92-109.

Cunningham, R.P., dan Porat-Shliom, N. 2021. Liver zonation–revisiting old questions with new technologies. *Frontiers in Physiology*, 12, p.732929.

Da Silva, T.C., Hiller, C., Gai, Z., dan Kullak-Ublick, G.A. 2016. Vitamin D3 transactivates the zinc and manganese transporter SLC30A10 via the Vitamin D receptor. *Journal of Steroid Biochemistry and Molecular Biology*, 163, p.77-87.

Damasceno, D.C., Netto, A.O., Lessi, I.L., Gallego, F.Q., Corvino, S.B., Dallaqua, B., *et al*. 2014. Streptozotocin-induced diabetes models: Pathophysiological mechanisms and fetal outcomes. *BioMed Research International*, 2014(1), p.819065.

Ding, N., Yu, R.T., Subramaniam, N., Sherman, M.H., Wilson, C., Rao, R., *et al*. 2013. A vitamin D receptor/SMAD genomic circuit gates hepatic fibrotic response. *Cell*, 153(3), p.601-613.

Dong, J.Y., Zhang, W.G., Chen, J.J., Zhang, Z.L., dan Han, S.F. 2019. Association between vitamin D and type 1 diabetes mellitus in children: A meta-analysis of observational studies. *Nutrients*, 11(8), p.3551-3562.

Elangovan, H., Chahal, S., dan Gunton, J.E. 2017. Vitamin D in liver disease: current evidence and potential directions. *Biochimica et Biophysica Acta-Molecular Basis of Disease*, 1863(4), p.907-916.

Elsheikh, E., Henry, L.L., dan Younossi, Z.M. 2013. Current management of patients with nonalcoholic fatty liver disease. *Expert Review of Endocrinology and Metabolism*, 8(6), p.549-558.

Fabregat, I., dan Caballero-Díaz, D. 2018. Transforming growth factor-β-induced cell plasticity in liver fibrosis and hepatocarcinogenesis. *Frontiers in Oncology*, 8, p.357.

Fatani, S.H., Babakr, A.T., NourEldin, E.E.M., dan Almarzouki, A.A. 2016. Lipid peroxidation is associated with poor control of type-2 diabetes mellitus. *Diabetes and Metabolic Syndrome: Clinical Research and Reviews*, 10(2), p.S64-S67.

Fiorentino, T., Prioletta, A., Zuo, P., dan Folli, F. 2013. Hyperglycemia-induced oxidative stress and its role in diabetes mellitus related cardiovascular diseases. *Current Pharmaceutical Design*, 19(32), p.5695-5703.

Flanagan, S.E., Haapaniemi, E., Russell, M.A., Caswell, R., Allen, L., Franco, E. De, *et al*. 2015. Activating germline mutations in STAT3 cause early-onset multi-organ autoimmune disease. *Nature Genetics*, 46(8), p.812-814.

Foroughi, M., Maghsoudi, Z., dan Askari, G. 2016. The effect of Vitamin D supplementation on blood sugar and different indices of insulin resistance in patients with non-alcoholic fatty liver disease (NAFLD). *Iranian Journal of Nursing and Midwifery Research*, 21(1), p.100-104.

Forouhi, N.G., Luan, J., Cooper, A., Boucher, B. J., dan Wareham, N.J. 2008. Baseline serum 25-hydroxy vitamin D is predictive of future glycemic status and insulin resistance: the Medical Research Council Ely Prospective Study 1990–2000. *Diabetes*, 57(10). p.2619-2625.

Furman, B.L. 2021. Streptozotocin-induced diabetic models in mice and rats. *Current Protocols*, 1(4), p.e78.

Grossmann, R.E., Zughaier, S.M., Liu, S., Lyles, R.H., dan Tangpricha, V. 2012. Impact of vitamin D supplementation on markers of inflammation in adults

with cystic fibrosis hospitalized for a pulmonary exacerbation. *European Journal of Clinical Nutrition*, 66(9), p.1072-1074.

Hall, A., Cotoi, C., Luong, T.V., Watkins, J., Bhathal, P., dan Quaglia, A. 2021. Collagen and elastic fibres in acute and chronic liver injury. *Scientific Reports*, 11(1), p.14569.

Hall, J.E., dan Hall, M.E. 2020. *Guyton and hall textbook of medical physiology e-book*. Elsevier Health Sciences.

Heyens, L.J.M., Busschots, D., Koek, G.H., Robaeys, G., dan Francque, S. 2021. Liver fibrosis in non-alcoholic fatty liver disease: from liver biopsy to non-invasive biomarkers in diagnosis and treatment. *Frontiers in Medicine*, 8, p.615978.

Hii, C.S., dan Ferrante, A. 2016. The non-genomic actions of vitamin D. *Nutrients*, 8(3), p.135.

International Diabetes Federation. 2019. *IDF diabetes atlas 9th edition*. [Online] Available at: https://diabetesatlas.org/upload/resources/material/20200302_133351_IDFATLAS9e-final-web.pdf

Kalra, A., Yetiskul, E., Wehrle, C.J. dan Tuma, F. 2018. *Physiology, liver*. In: StatPearls. StatPearls Publishing, Treasure Island (FL).

Karin, D., Koyama, Y., Brenner, D., dan Kisseleva, T. 2016. The characteristics of activated portal fibroblasts/myofibroblasts in liver fibrosis. *Differentiation*, 92(3), p.84-92.

Keane, J.T., Elangovan, H., Stokes, R.A., dan Gunton, J.E. 2018. Vitamin D and the liver—correlation or cause?. *Nutrients*, 10(4), p.496.

Kementerian Kesehatan Republik Indonesia. 2020. *Infodatin 2020 diabetes mellitus*. [Online] Available at: https://pusdatin.kemkes.go.id/resources/download/pusdatin/infodatin/Infodatin-2020-Diabetes-Melitus.pdf

Ko, B.J., Kim, Y.S., Kim, S.G., Park, J.H., Lee, S.H., Jeong, S.W., *et al*. 2016. Relationship between 25-hydroxyvitamin D levels and liver fibrosis as assessed by transient elastography in patients with chronic liver disease. *Gut and Liver*, 10(5), p.818.

Kramer, H., Berns, J.S., Choi, M.J., Martin, K., dan Rocco, M.V. 2014. 25-Hydroxyvitamin D testing and supplementation in CKD: an NKF-KDOQI controversies report. *American Journal of Kidney Diseases*, 64(4), p.499-509.

Labudzynskyi, D.O., Zaitseva, O.V., Latyshko, N.V., Gudkova, O.O. dan Veliky, M.M. 2015. Vitamin D3 contribution to the regulation of oxidative metabolism in the liver of diabetic mice. *The Ukrainian Biochemical Journal*, 87 (3), p.75-90.

LeCluyse, E.L., Witek, R.P., Andersen, M.E., dan Powers, M.J. 2012. Organotypic liver culture models: meeting current challenges in toxicity testing. *Critical Reviews in Toxicology*, 42(6), p.501-548.

Lim, H., Lee, H., dan Lim, Y. 2021. Effect of vitamin D3 supplementation on hepatic lipid dysregulation associated with autophagy regulatory AMPK/Akt-mTOR signaling in type 2 diabetic mice. *Experimental Biology and Medicine*, 246(10), p.1139-1147.

Liu, R.M., dan Desai, L.P. 2015. Reciprocal regulation of TGF-β and reactive oxygen species: A perverse cycle for fibrosis. *Redox Biology*, 6, p.565-577.

Liu, L., Lv, G., Ning, C., Yang, Y., dan Zhu, J. 2016. Therapeutic effects of 1,25-dihydroxyvitamin D3 on diabetes-induced liver complications in a rat model. *Experimental and Therapeutic Medicine*, 11(6), p.2284-2292.

Liu, X., Xu, J., Brenner, D.A., dan Kisseleva, T. 2013. Reversibility of liver fibrosis and inactivation of fibrogenic myofibroblasts. *Current Pathobiology Reports*, 1, p.209-214.

Lo, L., McLennan, S.V., Williams, P.F., Bonner, J., Chowdhury, S., McCaughan, G.W., *et al.* 2011. Diabetes is a progression factor for hepatic fibrosis in a high fat fed mouse obesity model of non-alcoholic steatohepatitis. *Journal of Hepatology*, 55(2), p.435-444.

Lundy, K., Greally, J.F., Essilfie-Bondzie, G., Olivier, J.B., Doña-Termine, R., Greally, J.M. *et al.* 2022. Vitamin D deficiency during development permanently alters liver cell composition and function. *Frontiers in Endocrinology*, 13, p.860286.

Mescher, L.A. 2018. Junqueira's basic histology. *Journal of Chemical Information and Modeling*, 15.

Miao, C.G., Yang, Y.Y., He, X., Huang, C., Huang, Y., Zhang, L., Lv, X.W., *et al.* 2013. Wnt signaling in liver fibrosis: progress, challenges and potential directions. *Biochimie*, 95(12), p.2326-2335.

Mitchell, D.M., Leder, B.Z., Cagliero, E., Mendoza, N., Henao, M.P., Hayden, D.L., *et al.* 2015. Insulin secretion and sensitivity in healthy adults with low vitamin D are not affected by high-dose ergocalciferol administration: a randomized controlled trial. *The American Journal of Clinical Nutrition*, 102(2), p.385-392.

Mohamed, J., Nafizah, A.N., Zariyantey, A.H., dan Budin, S. 2016. Mechanisms of diabetes-induced liver damage: the role of oxidative stress and inflammation. *Sultan Qaboos University Medical Journal*, 16(2), p.e132.

Mosaad, Y.M., Mostafa, M., Elwasify, M., Youssef, H.M., dan Omar, N.M. 2017. Vitamin D and immune system. *Vitam Miner*, 6(1), p.1000151.

Neshat, S.Y., Quiroz, V.M., Wang, Y., Tamayo, S., dan Doloff, J.C. 2021. Liver disease: induction, progression, immunological mechanisms, and therapeutic interventions. *International Journal of Molecular Sciences*, 22(13), p.6777.

Ning, C., Liu, L., Lv, G., Yang, Y., Zhang, Y., Yu, R., Wang, Y., *et al*. 2015. Lipid metabolism and inflammation modulated by Vitamin D in liver of diabetic rats. *Lipids in Health and Disease*, 14(1), p.1-9.

Ozougwu, O. 2013. The pathogenesis and pathophysiology of type 1 and type 2 diabetes mellitus. *Journal of Physiology and Pathophysiology*, 4(4), p.46-57.

Probst, P., Grummich, K., Heger, P., Zaschke, S., Knebel, P., Ulrich, A., *et al.* 2016. Blinding in randomized controlled trials in general and abdominal surgery: protocol for a systematic review and empirical study. *Systematic Reviews*, 5(1), p.1-6.

Rahimi-Madiseh, M., Malekpour-Tehrani, A., Bahmani, M., dan Rafieian-Kopaei, M. 2016. The research and development on the antioxidants in prevention of

diabetic complications. *Asian Pacific Journal of Tropical Medicine*, 9(9), p.825-831.

Ramos-Tovar, E., dan Muriel, P. 2020. Molecular mechanisms that link oxidative stress, inflammation, and fibrosis in the liver. *Antioxidants*, 9(12), p.1279.

Ramzy, M.M., Abdelghany, H.M., Zenhom, N.M., dan El-Tahawy, N.F. 2018. Effect of histone deacetylase inhibitor on epithelial-mesenchymal transition of liver fibrosis. *IUBMB Life*, 70(6), p.511-518.

Regnell, S.E., dan Lernmark, Å. 2011. Hepatic steatosis in type 1 diabetes. *Review of Diabetic Studies*, 8(4), p.454.

Roehlen, N., Crouchet, E., dan Baumert, T.F. 2020. Liver fibrosis: mechanistic concepts and therapeutic perspectives. *Cells*, 9(4), p.875.

Romi, M.M., Arfian, N., Setyaningsih, W.A.W., Putri, R.G.P., Juffrie, M., dan Sari, D.C.R. 2021. Calcitriol treatment attenuates uric acid-induced kidney injury via super oxide dismutase-1 (SOD-1) upregulation and fibrosis reduction. *Iranian Biomedical Journal*, 25(6), p.417.

Sadiya, A., Ahmed, S.M., Carlsson, M., Tesfa, Y., George, M., Ali, S.H., *et al.* 2015. Vitamin D supplementation in obese type 2 diabetes subjects in Ajman, UAE: a randomized controlled double-blinded clinical trial. *European Journal of Clinical Nutrition*, 69(6), p.707-711.

Saif-Elnasr, M., Ibrahim, I.M., dan Alkady, M.M. 2017. Role of vitamin D on glycemic control and oxidative stress in type 2 diabetes mellitus. *Journal of Research in Medical Sciences*, 22(1), p.22.

Salway, J.G. 2012. *Medical biochemistry at a glance*. John Wiley & Sons.

Sapra, A., Bhandari, P., dan Wilhite Hughes, A. 2021. *Diabetes mellitus (nursing)*. In: StatPearls. StatPearls Publishing, Treasure Island (FL).

Sari, D.C.R., Putri, M.W., Leksono, T.P., Chairunnisa, N., Reynaldi, G.N., Simanjuntak, B.C., *et al.* 2019. Calcitriol ameliorates kidney injury through reducing podocytopathy, tubular injury, inflammation and fibrosis in 5/6 subtotal nephrectomy model in rats. *Kobe Journal of Medical Sciences*, 65(5), p.E153.

Sassi, F., Tamone, C., dan D'amelio, P. 2018. Vitamin D: nutrient, hormone, and immunomodulator. *Nutrient*s, 10(11), p.1656.

Senoo, H. 2004. Structure and function of hepatic stellate cells. *Medical Electron Microscopy*, 37, p.3-15.

Shab-Bidar, S., Neyestani, T.R., dan Djazayery, A. 2015. The interactive effect of improvement of vitamin D status and VDR FokI variants on oxidative stress in type 2 diabetic subjects: a randomized controlled trial. *European Journal of Clinical Nutrition*, 69(2), p.216-222.

Skaaby, T., Husemoen, L.L.N., Borglykke, A., Jørgensen, T., Thuesen, B.H., Pisinger, C., *et al*. 2014. Vitamin D status, liver enzymes, and incident liver disease and mortality: a general population study. *Endocrine*, 47(1), p.213-220.

Sureshbabu, A., Muhsin, S.A., dan Choi, M.E. 2016. TGF-β signaling in the kidney: profibrotic and protective effects. *American Journal of Physiology-Renal Physiology*, 310(7), p.F596-F606.

Tortora, G.J., dan Derrickson, B.H. 2018. *Principles of anatomy and physiology*. John Wiley & Sons.

Tzilas, V., Bouros, E., Barbayianni, I., Karampitsakos, T., Kourtidou, S., Ntassiou, M., *et al.* 2019. Vitamin D prevents experimental lung fibrosis and predicts survival in patients with idiopathic pulmonary fibrosis. *Pulmonary Pharmacology & Therapeutics*, 55, p.17-24.

Udomsinprasert, W., dan Jittikoon, J. 2019. Vitamin D and liver fibrosis: molecular mechanisms and clinical studies. *Biomedicine & Pharmacotherapy*, 109, p.1351-1360.

Vitar, R.M.L., Fonteyne, P., Knutsson, K.A., Bertuzzi, F., Galli, L., Rama, P., *et al.* 2022. Vitamin D supplementation impacts systemic biomarkers of collagen degradation and copper metabolism in patients with keratoconus. *Translational Vision Science & Technology*, 11(12), p.16.

Wang, F., Hu, R., Zhang, J., Pei, T., Ju, L., Han, Z., *et al*. 2021. High-dose vitamin D3 supplementation ameliorates renal fibrosis by vitamin D receptor activation and inhibiting TGF-β1/SMAD3 signaling pathway in 5/6 nephrectomized rats. *European Journal of Pharmacology*, 907, p.174271.

Wei, J., Zhan, J., Ji, H., Xu, Y., Xu, Q., Zhu, X. *et al.* 2023. Fibroblast upregulation of vitamin D receptor represents a self-protective response to limit fibroblast proliferation and activation during pulmonary fibrosis. *Antioxidants*, 12(8), p.1634.

Wherrett, D.K., Ho, J., Huot, C., Legault, L., Nakhla, M., Rosolowsky, E. *et al.* 2018. Type 1 diabetes in children and adolescents. *Canadian Journal of Diabetes*, 42, p.S234-S246.

Wu, J., dan Yan, L.J. 2015. Streptozotocin-induced type 1 diabetes in rodents as a model for studying mitochondrial mechanisms of diabetic β cell glucotoxicity. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*, 8, p.181-188.

Yang, B.B, Chen, Y.H., Zhang, C., Shi, C.E., Hu, K.F., Zhou, J., *et al*. 2017. Low vitamin D status is associated with advanced liver fibrosis in patients with nonalcoholic fatty liver disease. *Endocrine*, 55(2), p.582-590.

Yi, Z., Wang, L., dan Tu, X. 2021. Effect of vitamin D deficiency on liver cancer risk: A systematic review and meta-analysis. *Asian Pacific Journal of Cancer Prevention: APJCP*, 22(4), p.991.

Yu, M., Wu, H., Wang, J., Chen, X., Pan, J., Liu, P., *et al.* 2021. Vitamin D receptor inhibits EMT via regulation of the epithelial mitochondrial function in intestinal fibrosis. *Journal of Biological Chemistry*, 296.

Yuan, Q., Zhang, R., Sun, M., Guo, X., Yang, J., Bian, W., *et al.* 2022. Sirt1 Mediates Vitamin D Deficiency-Driven Gluconeogenesis in the Liver via mTorc2/Akt Signaling. *Journal of Diabetes Research*, 2022(1), p.1755563.

Zhong, W., Gu, B., Gu, Y., Groome, L. J., Sun, J., dan Wang, Y. 2014. Activation of vitamin D receptor promotes VEGF and CuZn-SOD expression in endothelial cells. *Journal of Steroid Biochemistry and Molecular Biology*, 140, p.56-62.

Zhu, C.G., Liu, Y.X., Wang, H., Wang, B.P., Qu, H.Q., Wang, B.L., *et al*. 2017. Active form of vitamin D ameliorates non-alcoholic fatty liver disease by

alleviating oxidative stress in a high-fat diet rat model. *Endocrine Journal*, 64(7), p.663-673.