

Daftar Pustaka

1. Hassan K, Bhalla V, El Regal ME, A-Kader HH. Non-alcoholic fatty liver disease: a comprehensive review of a growing epidemic. *World J Hepatol.* 2014 Sep; 20(34): 12082–101.
2. Liu A, Galoosian A, Kawala D, Li AA, Gadiparthi C, Cholankeril G, et al. Nonalcoholic fatty liver disease: epidemiology, liver transplantation trends and outcomes, and risk of recurrent disease in the graft. *J Clin Transl Hepatol.* 2018 Jul; 6(4): 420-4.
3. Becares N, C. Gage M, Voisin M, Gutierrez LM, Liang N, Louie R, et al. Impaired LX α phosphorylation attenuates progression of fatty liver disease. *Cell Reports.* 2019 Jan; 26: 984-95.
4. Wong RJ, Aguilar M, Cheung R, Perumpail RB, Harrison SA, Younossi ZM, et al. Nonalcoholic steatohepatitis is the second leading etiology of liver disease among adults awaiting liver transplantation in the united states. *Gastroenterology.* 2015; 148: 547-55.
5. Byrne CD, Targher. NAFLD: A multisystem disease. *J Hepatol.* 2015 Apr; 62(1): 47-64.
6. Younossi Z, Anstee QM, Marietti , Hardy T, Henry L, Eslam M, et al. Global burden of NAFLD and NASH: trends, predictions, risk factors and prevention. *Nat Rev Gastroenterol Hepatol.* 2017 Sep; 15(1): 11-20.
7. Jian-Gao F, Seung-Up K, Wai-Sun WV. New trends on obesity and NAFLD in Asia. *J Hepatol.* 2017 Okt; 67(4): 862-73.
8. Krishan S. Correlation between non-alcoholic fatty liver disease (NAFLD) and dyslipidemia in type 2 diabetes. *Diabetes Metab Syndr.* 2016 Jan; 10(2): 77-81.
9. Huang PL. A comprehensive definition for metabolic syndrome. *Dis Model Mech.* 2009 Jun; 2: 231-7.
- 10 Kementrian Kesehatan Republik Indonesia. Hasil utama Riskesdas 2018.
. KemKes. 2018. <https://www.kemkes.go.id/resources/download/info-terkini/hasil-riskesdas-2018.pdf>- 5 Agustus 2019.
- 11 Sakulat W. Obesitas. Rumah Sakit Universitas Airlangga. 2014.

- . <https://rumahsakit.unair.ac.id/website/obesitas> – Diakses 25 November 2019.
- 12 Katsiki N, Mikhailidis DP, S.Mantzoros. Non-alcoholic fatty liver disease and dyslipidemia: An update. *Metabolism*. 2016 Mei; 65(8): 1109-23.
- 13 Li M, Xu C, Shi J, Ding J, Wan X, Chen D, et al. Fatty acids promote fatty liver disease via the dysregulation of 3-mercaptopyruvate sulfurtransferase/hydrogen sulfide pathway. *BMJ*. 2017 Sep; 67(12): 1-12.
- 14 Sears B, Perry M. The role of fatty acids in insulin resistance. *Lipids Health Dis.* 2015 Sep; 14(121): 1-9.
- 15 Khoonsari M, Azar MMH, Ghavam R, Hatami K, Asobar M, Gholami A, et al. Clinical manifestations and diagnosis of nonalcoholic fatty liver disease. *Iran J Pathol*. 2017; 12(2): 99-105.
- 16 Hoffman M. Picture of the liver. WebMD. 2014.
. <https://www.webmd.com/digestive-disorders/picture-of-the-liver#1> – Diakses 6 Juli 2019.
- 17 Kapoor VK. Liver anatomy. Medscape. 2017.
. <https://emedicine.medscape.com/article/1900159-overview> – Diakses 19 Juli 2019
- 18 Jevas O. Physiology of the Liver. *Int. J. Pharm. Biol. Sci.* 2017; 4(8): 13 - 24.
- .
- 19 May H. The liver – lobes – ligaments – vasculature. TeachMe Anatomy. 2018.
. <https://teachmeanatomy.info/abdomen/viscera/liver/> – Diakses 19 Juli 2019.
- 20 Dancygier H. Clinical Hepatology: Principles and Practice of Hepatobiliary Diseases. 1st ed. Offenbach: Springer; 2009.
- 21 Garbar V, Newton BW. StatPearls. 2019.
. <https://www.ncbi.nlm.nih.gov/books/NBK539858/> – Diakses 22 Juli 2019.
- 22 Dr. dr. I. Harjadi Widjaja P. Anatomi Abdomen. 1st ed. Jakarta: Penerbit Buku Kedokteran EGC; 2009.
- 23 Smith DHS, Oh DLO. Ligamentum venosum. Radiopaedia. 2018.
. <https://radiopaedia.org/articles/ligamentum-venosum> .
- 24 Eroschenko VP. Sistem Pencernaan Bagian IV : Organ Pencernaan Aksesoris

- . (Hati, Pankreas, dan Kandung Empedu). In Suyono YJ, Mulyadi KC, Rughwani NR, Nitihardjo CK, Reztaputra R, editors. *Atlas Histologi diFiore*. Jakarta: EGC; 2016. 367 - 376.
- 25 Rad A, Zehra U. Liver histology structure, cells & characteristics. KenHub.
2019. <https://www.kenhub.com/en/library/anatomy/liver-histology> – Diakses 22 Agustus 2019.
- 26 Ovalle WK, Nahirney PC. *Netter's Essential Histology*. 2nd ed. Philadelphia: Saunders; 2013.
- 27 Shiel WC. MedicineNet. 2018.
<http://www.medicinenet.com/script/main/art.asp?articlekey=22124> – Diakses 20Agustus 2019.
- 28 Merscher AL. *Histologi Dasar Junqueira Teks dan Atlas*. 12th ed. Hartanto H, editor. Jakarta: EGC; 2012.
- 29 Brunt EM, Gouw ASH, Hubscher SG, Tiniakos DG, Pierre B, Burt AD, et al. Pathology of the liver sinusoid. *Histopathology*. 2014 Jun; 64(7): 907 - 20.
- 30 Knolle PA, Wohlleber D. Immunological function of liver sinusoidal epithelial cells. *Cell Mol Immunol*. 2016; 13: 347 - 53.
- 31 Shang L, Hosseini M, Liu X, Kisileva T, Brenner AD. Human hepatic stellate cell isolation and characterization. *J Gastroenterol*. 2018 Jan; 53(1): 6-17.
- 32 Tsuchida T, Friedman SL. Mechanism of hepatic stellate activation. *Nat Rev Gastroenterol Hepatol*. 2017 Juli; 14(7): 397 - 411.
- 33 Kawada N, Parola M. Interactions of stellate cells with other non-parenchymal cells. In Gandhi C, Pinzani M, editors. *Stellate Cells in Health and Disease*. Academic Press; 2015: 185 - 207.
- 34 Peng H, Sun R. Liver-resident NK Cells and their potential function. *Cell Mol Immunol*. 2017 Sep; 14: 890 - 94.
- 35 Mikulak J, Bruni E, Oriolo F, Vito CD, Mavilio D. Hepatic natural killer cells: organ - specific sentinels of liver immune homeostasis and physiopathology. *Front Immunol*. 2019 Apr; 10(946): 1 - 12.
- 36 Sherwood L. *Fisiologi Manusia Dari Sel Ke Sistem*. 8th ed. Ong HO, Mahode

- . AA, Ramadhani D, editors. Jakarta: EGC; 2012.
- 37 Wedro B. Liver anatomy and function. Medicinenet. 2018.
https://www.medicinenet.com/liver_anatomy_and_function/article.htm#liver_definition_and_facts – Diakses 27 Juli 2019.
- 38 Friedman SL, Neuschwander-Tetri BA, Rinella, Sanyal AJ. Mechanisms of NAFLD development and therapeutic strategies. Nat Med. 2018 Jul; 24(7): 908 - 22.
- 39 Younossi ZM, Koenig AB, Abdelatif D, Yousef F, Henry L, Wymer M. Global epidemiology of nonalcoholic fatty liver disease - meta analytic assessment of prevalence, incidence, and outcomes. Hepatology. 2016 Jul; 64(1): 73-84.
- 40 Ikura Y. Transitions of histopathologic criteria for diagnosis of nonalcoholic fatty liver disease during the last three decades. World J Hepatol. 2014 Des; 6(12): 894 - 900.
- 41 Brunt EM. Nonalcoholic fatty liver disease: pros and cons of histologic system of evaluation. Int J Mol Sci. 2016 Jan; 17(97): 1-10.
- 42 McPherson S, Hardy T, Henderson E, Burt AD, Day PC, Anstee MQ. Evidence of NAFLD progression from steatosis to fibrosing-steatosis using paired biopsies: implications for prognosis and clinical management. J Hepatol. 2015 Mei; 62(5): 1148 - 55.
- 43 Estes C, Razavi H, Loomba R, Younossi Z, Sanya AJ. Modeling the epidemic of nonalcoholic fatty liver disease demonstrates an exponential increase in burden of disease. Hepatology. 2018 Jan; 67(1): 123 - 33.
- 44 Sayiner K, Henry L, Zobair M, Younossi ZM. Epidemiology of Nonalcoholic fatty liver disease and nonalcoholic steatohepatitis in the united states and the rest of the world. Clin Liver Dis. 2016 Mei; 20(2): 205 - 14.
- 45 Wait S. NASH: the liver disease everyone will be talking about. Health Policy Partnership. 2019. <https://www.healthpolicypartnership.com/nash-liver-disease-everyone-will-be-talking-about/> – Diakses 6 September 2019.
- 46 Yki-Järvinen H. Non-alcoholic fatty liver disease as a cause and a consequence of metabolic syndrome. Lancet Diabetes Endocrinol. 2014 Apr; 2(11): 901-10.

- 47 Sliz E, Sebert S, Wurtz P, Kangas AJ, Kahonen M, Vikari J, et al. NAFLD risk alleles in PNPLA3, TM6SF2, GCKR and LYPLAL1 show divergent metabolic effects. *Hum Mol Genet*. 2018 Jun; 27(12): 2214 - 23.
- 48 Lonardo A, Ballestri , Marchesini , Angulo P, Loria P. Nonalcoholic fatty liver disease: A precursor of the metabolic. *Dig Liver Dis*. 2015 Mar; 47(3): 181 - 90.
- 49 Kupcinskas J, Valantiene I, Varkalaitè G, Steponaitiene R, Skieceviciene J, Sumskien, et al. PNPLA3 and RNF7 gene variants are associated with the risk of developing liver fibrosis and cirrhosis in an eastern european population. *J Gastrointestin Liver Dis*. 2017 Mar; 26(1): 37 - 43.
- 50 Bruschi FV, Tardelli M, Claudel T, Trauner M. PNPLA3 expression and its impact on the liver: current perspectives. *Hepat Med*. 2017 Nov; 9: 55 - 66.
- 51 Kumar R, Mohan S. Non-alcoholic fatty liver disease in lean subjects : characteristics and implications. *Clin Transl Hepatol*. 2017 Jul; 5(3): 216 - 23.
- 52 Stender, Kozlitina, Nordestgaard BG, Tybjærg-Hansen, Hobbs HH, Cohen JC. Adiposity amplifies the genetic risk of fatty liver disease conferred by multiple loci. *Nat Genet*. 2017 Jun; 49(6): 842 - 47.
- 53 Manne V, Handa P, Kowdley K. Pathophysiology of nonalcoholic fatty liver disease / nonalcoholic steatohepatitis. *Clin Liver Dis*. 2017; 22: 23 - 37.
- 54 Maria Streba LA, Vere CC, Rogoveanu I, Streba TC. Nonalcoholic fatty liver disease, metabolic risk factors, and hepatocellular carcinoma : an open question. *World J Gastroenterol*. 2015 Apr; 21(14): 41103 - 10.
- 55 Donghee Kim, Touros Alexis, Kim WR. Nonalcoholic fatty liver disease and metabolic syndrome. *Clin Liver Dis*. 2018 Feb; 22(1): 133 - 140.
- 56 Golabi P, Otgonsuren M, de Avila L, Sayiner M, Rafiq N, Younossi ZM. Components of metabolic syndrome increase the risk of mortality in nonalcoholic fatty liver disease (NAFLD). *Medicine*. 28 Feb; 97(13): 1-6.
- 57 Nuttall FQ. Body mass index. *Nutr Today*. 2015 Mei; 50(3): 117 - 28.
- 58 Misra A, Dhurandhar NV. Current formula for calculating body mass index is

- . applicable for asian populations. Nutr Diabetes. 2019; 9(3): 1 - 2.
- 59 Polyzos SA, Kountouras Jannis, Mantzoros CS. Obesity and nonalcoholic fatty liver disease: From pathophysiology. Metabolism. 2018 Nov; 92: 82 - 97.
- 60 Lonardo A, Nascimbeni F, Targher G, Bernandi M, Bonino F, Bugianesi E, et al. AISF position Paper on Nonalcoholic Fatty Liver Disease: Updates and Future Directions. Dig Liver Disease. 2017 Jan; 49(5): 471 - 83.
- 61 de Assunção NF, Boa Sorte NC, Alves CD, Mendes PSA, Alves CRB, Silva LR. Nonalcoholic fatty liver disease (NAFLD) pathophysiology in obese children. Nutrición Hospitalaria. 2017; 34(3): 727 - 30.
- 62 Khan R, Bril F, Cusi K, Newsome PN. Modulation of Insulin Resistance in nonalcoholic fatty liver disease. Hepatology. 2018 Des; 70(2): 711 - 24.
- 63 Utzschneider KM, Kahn SE. The role of insulin resistance in nonalcoholic fatty liver disease. J Clin Endocrinol Metab. 2006 Des; 91(12): 4753-61
- 64 Perla FM, Prelati M, Lavorato M, Visicchio D, Anania C. The role of lipid and lipoprotein metabolism in non-alcoholic fatty liver disease. Children. 2017 Juni; 4(6): 18
- 65 Kitade H, Chen G, Ni Y, Ota T. Nonalcoholic fatty liver disease and insulin resistance: new insights and potential new treatments. Nutrients. 2017 Apr; 9(4): 4 - 13.
- 66 Qian LY, Tu JF, Ding YH, Pang J, Che , Zou H, et al. Association of blood pressure level with nonalcoholic fatty liver disease in nonhypertensive population. Medicine. 2016 Jul; 95(29): 4293.
- 67 Campo L, Eiseler, Apfel, Pyrsopoulos. Fatty liver disease and gut microbiota: a comprehensive update. J Clin Transl Hepatol. 2019 Mar; 7(1): 56 - 60.
- 68 Li C, Xing JJ, Shan AQ, Leng L, Liu JC, Yue S, et al. Increased risk of nonalcoholic fatty liver disease with occupational stress in chinese policeman. Medicine. 2016 Nov; 95(46).
- 69 Snel M, Jonker JT, Schoones J, Lamb H, de Roos A, Pijl H, et al. Ectopic fat and insulin resistance pathophysiology and effect of diet and lifestyle interventions. Intl J of Endocrinol. 2012: 1-18

- 70 Zhang Y, Ma KL, Ruan XZ, Liu C. Dysregulation of the low-density lipoprotein receptor pathway is involved in lipid disorder-mediated organ injury. *Int J Bio Sci.* 2016 Mar; 12(5): 569-79.
- 71 Barrera F, George J. The role of diet and nutritional intervention for the management of patients with NAFLD. *Clin Liver Dis.* 2014 Feb; 18(1): 91 - 112.
- 72 Leoni S, Tovoli F, Napoli L, Serio I, Ferri S, Bolondi L. Current guidelines for the management of non-alcoholic fatty liver disease : A systematic review with comparative analysis. *World J Gastroenterol.* 2018 Aug; 24(30): 3361- 73.
- 73 Martin-Rodriguez JL, Cantero G, Cantero AAG, Arrebola J, Gonzalez-Calvin JL. Diagnostic accuracy of serum alanine aminotransferase as biomarker for nonalcoholic fatty liver disease and insulin resistance inusing 3T MR spectroscopy. *Medicine.* 2017 Apr; 96(17): 1 - 9.
- 74 Marcuccili M, Chonchol M. NAFLD and chronic kidney disease. *Int J Mol Sci.* 2016 Apr; 17(4): 1-15.
- 75 Ho Lee Dong. Imaging evaluation of non - alcoholic fatty liver disease : focused on quantification. *Clin Mol Hepatol.* 2017 Okt; 23(4): 290-301.
- 76 Hashemi AS, Alavian MS, Fesharaki GM. Assessment of transient elastography (fibroscan) for diagnosis of fibrosis in non-alcoholic fatty liver disease: a systematic review and metaanalysis. *Caspian J Intern Med.* 2016; 7(4): 242-52.
- 77 Memorial Sloan Kettering Cancer Center. 2018.
<https://www.mskcc.org/cancer-care/patient-education/understanding-your-fibroscan-result-> Diakses 27 Nov 2019
- 78 Aditya P, A Lesmana CR. Pharmacological and non-pharmacological treatment in non-alcoholic fatty liver disease. *Indones J Gastroenterol, Hepatol Dig Endosc.* 2013 Des; 14(3): 174-81.
- 79 Stål P. Liver fibrosis in nonalcoholic fatty liver disease - diagnostic challenge with prognostic significance. *World J Hepatol.* 2015 Okt; 21(39): 11077-87.
- 80 DepKes RI. Profil Kesehatan Indonesia 2009 Hasnawati , Sitohang V, Brahim

- . R, editors. Jakarta: Kementerian Kesehatan RI; 2010.
- 81 Sub Direktorat Klasifikasi dan Pembakuan Statistik Direktorat Metodologi Statistik. Klasifikasi Baku Jenis Pekerjaan Indonesia. Jakarta. Badan Pusat Statistik. 2002. 1-19.
- 82 Syafitri V, Arnelis , Efrida. Gambaran profil lipid pasien perlemakan hati non alkoholik. Jurnal Kesehatan Andalas. 2015; 4(1): 274-7.
- 83 Bertolotti , Lonardo A, Mussi C, Baldelli E, Pellegrini E, Ballestri S, et al. Nonalcoholic fatty liver disease and aging: epidemiology to management. World J Gastroenterol. 2014 Okt; 20(39): 14185-204.
- 84 Hamaguchi M, Kojima T, Ohbora , Takeda , Fukui M, Kato T. Aging is a risk factor of nonalcoholic fatty liver disease in premenopausal women. World J Gastroenterol. 2012 Jan; 18(3): 237-43.
- 85 Stepanova M, De AL, Afendy M, Younossi I, Pham H, Cable R, Younossi ZM. Direct and indirect economic burden of chronic liver disease in the united states. Clin Gastroenterol Hepatol. 2017 Mei; 15(5): 759-66.
- 86 Tacer KF, Rozman D. Nonalcoholic fatty liver disease: focus on lipoprotein and lipid disregulation. Journal of Lipids. 2011: 1-14.
- 87 Ratnasari N, Senorita H, Adie RH, Bayupurnama P, Maduseno S, Nurdjanah S. Non-alcoholic fatty liver disease related to metabolic syndrome: a case-control study. Indones J Gastroenterol, Hepatol Dig Endosc. 2012; 13(1): 8-13.
- 88 Chen Z, Qin , Qiu S, Chen G, Chen Y. Correlation of triglyceride to high-density lipoprotein cholesterol ratio with nonalcoholic fatty liver disease among the non-obese Chinese population with normal blood lipid levels: a retrospective cohort research. Lipids Health Dis. 2019 Aug; 18(162): 1-7.
- 89 Aneni EC, Oni ET, Martin SS, Blaha MJ, Agatston AS, Feldman T, et al. Blood pressure is associated with the presence and severity of nonalcoholic fatty liver disease across the spectrum of cardiometabolic risk. J Hypertens. 2015 Jun; 33(6): 1207-14.
- 90 Sung KC, Kim SH. Interrelationship between Fatty Liver and Insulin Resistance in the Development of Type 2 Diabetes. J Clin Endocrinol Metab.

- 2011 Jan; 96(4): 1093–7.
- 91 Zhi-Chao Y, Zhen-Guang C, Yang Q, Zhi-Qiang Z. Non-alcoholic fatty liver disease is associated with increased risk of hypertension and prehypertension: a systematic review and meta-analysis. *Int J Clin Exp Med*. 2017 Apr; 10(4).
- 92 Deeb A, Attia S, Mahmoud S, Elhaj , Elfatih A. Dyslipidemia and fatty liver disease in overweight and obese children. *Journal of Obesity*. 2018 Jun: 1-6.

