

DAFTAR PUSTAKA

- Almoiliqy, M., Wen, J., Qaed, E., Sun, Y., Lian, M., Mousa, H., Al-Azab, M., Zaky, M.Y., Chen, D., Wang, L. and Al-Sharabi, A., 2020. Protective effects of cinnamaldehyde against mesenteric ischemia-reperfusion-induced lung and liver injuries in rats. *Oxidative Medicine and Cellular Longevity*, 2020, pp.7-8.
- Altika, S. and Rahayu, R.S.R., 2017. Analisis Total Status Antioksidan (TSA) Pasien Tuberkulosis (TB) Paru Kelompok Usia 30-60 Tahun di Wilayah Kerja Puskesmas Kecamatan Genuk Kota Semarang. *Public Health Perspective Journal*, 2(3), pp.6.
- Amirabagya, F., Hapsari, R.A.F. and Wulandari, E., 2021. The effect of *Jatropha curcas* L seed extract on AST/ALT activity and the central vein thickness in liver. *Pharmacognosy Journal*, 13(1), pp.1-2.
- Arief, H. and Widodo, M.A., 2018. Peranan stres oksidatif pada proses penyembuhan luka. *Jurnal Ilmiah Kedokteran Wijaya Kusuma*, 5(2), pp.22-28.
- Asim, M., Amin, F. and El-Menyar, A., 2020. Multiple organ dysfunction syndrome: Contemporary insights on the clinicopathological spectrum. *Qatar medical journal*, 2020(2), pp.22.
- Askaripour, M., Jamshidian, J. and Tabatabaei, S.R.F., 2019. The Effect of Galantamine on Liver Function in Hepatic Ischemia/Reperfusion Injury in Rats. *Disease and Diagnosis*, 8(1), pp.31-36.
- Aubrey, B. J., Kelly, G. L., Janic, A., Herold, M. J. and Strasser, A. 2018. How Does p53 Induce Apoptosis and How Does this Relate to p53-mediated Tumour Suppression?. *Cell Death & Differentiation*. 25(1):104-113, pp.2-6.

- Bell, 2020 pada *website* American Association for The Study of Liver Disease
- Bindaputri, J.F. and Sudiono, J., 2024. CD68 Expression on Macrophages as Anti-Inflammatory Effect of Tamarillo (*Solanum betaceum* Cav.) Fruit Peel Ethanol Extract (Study on Carrageenan-Induced Buccal Mucosa of Rats). *Jurnal Biomedika dan Kesehatan*, 7(1), pp.6-16.
- Biswas, P., Anand, U., Saha, S.C., Kant, N., Mishra, T., Masih, H., Bar, A., Pandey, D.K., Jha, N.K., Majumder, M. and Das, N., 2022. Betelvine (*Piper betle* L.): A comprehensive insight into its ethnopharmacology, phytochemistry, and pharmacological, biomedical and therapeutic attributes. *Journal of Cellular and Molecular Medicine*, 26(11), pp.3083-3119.
- Brandes, R., Lang, F. and Schmidt, R.F. eds., 2019. *Physiologie des Menschen: mit Pathophysiologie*. Springer-Verlag, pp.30-33
- Brown, C.L., Hammill, B.G., Qualls, L.G., Curtis, L.H. dan Muir, A.J. 2016. Significant Morbidity and Mortality among Hospitalized End-stage Liver Disease Patients in Medicare. *Journal of pain and symptom management*. 52(3):412-419, pp.2-3.
- Cabi Digital Library*. 2019. Tersedia: <https://www.cabidigitallibrary.org/doi/full/10.1079/cabicompendium.79363> (Diakses pada: 12 Maret 2024).
- Cannistrà, M., Ruggiero, M., Zullo, A., Gallelli, G., Serafini, S., Maria, M., Naso, A., Grande, R., Serra, R. and Nardo, B., 2016. Hepatic ischemia reperfusion injury: A systematic review of literature and the role of current drugs and biomarkers. *International Journal of Surgery*, 33, pp.S57-S70.

- Celepli, S., Çolak, B., Celepli, P., Bigat, İ., Batur, H.G., Soysal, F., Karakurt, S., Hücümenoğlu, S., Kısmet, K. and Kahin, M., 2021. Effects of artichoke leaf extract on hepatic ischemia-reperfusion injury. *Revista da Associação Médica Brasileira*, 68, pp.87-93.
- Chakraborty, A., Uechi, T. and Kenmochi, N., 2011. Guarding the ‘translation apparatus’: defective ribosome biogenesis and the p53 signaling pathway. *Wiley interdisciplinary reviews: RNA*, 2(4), pp.507-522.
- Chakravarthi, V., Karthikeyan, M., Lakshmanan, L., Murugesan, S., Arivuchelvan, A., Sukumar, K., Arulmozhi, A. and Jagadeeswaran, A., 2023. Computational study of Piper betle L. phytochemicals by insilico and ADMET analysis for prediction of potential xanthine oxidase inhibitory activity. *bioRxiv*, pp.2023-01.
- Choi, E. K. dan Lim, D. G. 2022. Hepatic ischemia-reperfusion injury with respect, pp.2-5.
- Cowled, P. and Fitridge, R., 2020. Pathophysiology of reperfusion injury. *Mechanisms of Vascular Disease: A Textbook for Vascular Specialists*, pp.415-440.
- Cullen, J.M. and Stalker, M.J., 2016. Liver and biliary system. *Jubb, Kennedy & Palmer's Pathology of Domestic Animals: Volume 2*, pp.258.
- Diaz Arguello, O.A. and Haisma, H.J., 2021. Apoptosis-inducing TNF superfamily ligands for cancer therapy. *Cancers*, 13(7), pp.1543.
- Fachri, H.O., Adriatmoko, W. and Astuti, P., 2018. Khasiat Ekstrak Buah Markisa Kuning (P. Edulis Sims) sebagai Antiinflamasi Dilihat dari Jumlah Monosit pada Tikus Wistar Jantan (Rattus norvegicus). *STOMATOGNATIC-Jurnal Kedokteran Gigi*, 15(2), pp.34-36.

- Ferchichi, H., Salouage, I., Bacha, S., Kourda, N., Jebabli, N., Gaies, E., Klouz, A. and Trabelsi, S., 2018. Hypericum humifusum leaves attenuates hepatic ischemia-reperfusion injury in a rat model. *Annals of Hepatology*, 17(1), pp.144-152.
- Fumagalli, S., Fiordaliso, F., Perego, C., Corbelli, A., Mariani, A., De Paola, M. and De Simoni, M.G., 2019. The phagocytic state of brain myeloid cells after ischemia revealed by superresolution structured illumination microscopy. *Journal of Neuroinflammation*, 16, pp.1-14.
- Galvin, Z., McDonough, A., Ryan, J. dan Stewart, S. 2015. Blood Alanine Aminotransferase Levels > 1,000 IU/l—causes and Outcomes. *Clinical medicine*. 15(3):244-247, pp.2-3.
- Gasmi, B. and Kleiner, D.E., 2020. Liver histology: diagnostic and prognostic features. *Clinics in liver disease*, 24(1), pp.61-74.
- Handajani, F., 2019. Oksidan dan antioksidan pada beberapa penyakit dan proses penuaan. *Zifatama Jawara*, pp.27-34.
- Harlim, A. 2018. *Buku Ajar Ilmu Kesehatan Kulit dan Kelamin: Immunologi Inflamasi*. pp.5.9
- Haslan, H., Suhaimi, F.H., Thent, Z.C. dan Das, S. 2015. The Underlying Mechanism of Action for Various Medicinal Properties of Piper betle (betel). *Clin Ter*. 166(5):208-214, pp.1.
- Heeren, J. and Scheja, L., 2021. Metabolic-associated fatty liver disease and lipoprotein metabolism. *Molecular metabolism*, 50, pp.101238.
- Hidayah, H., Amal, S. and Dahlia, I., 2022. Aktivitas Kandungan Daun Sirih (Piper Betle L.) Sebagai Antioksidan: Literature Review Article. *Jurnal Buana Farma*, 2(3), pp.47-51.

- Hintermann, E. and Christen, U., 2019. The many roles of cell adhesion molecules in hepatic fibrosis. *Cells*, 8(12), pp.1503.
- Hirao, H., Dery, K.J., Kageyama, S., Nakamura, K. dan Kupiec-Weglinski, J.W. 2020. Heme Oxygenase-1 in Liver Transplant Ischemia-reperfusion Injury: from Bench-to-bedside. *Free Radical Biology and Medicine*. 157:75-8, pp.3-5.
- Hsieh, C.C., Hsu, S.M., Hwang, L.S., Chiu, J.H., Lu, W.C., Wu, Y.L. and Hsieh, S.C., 2015. Protective effects of the extract from longan flower against hepatic ischemia/reperfusion injury in rats. *Journal of Functional Foods*, 15, pp.570-579.
- Kalra, A., Yetiskul, E., Wehrle, C.J. and Tuma, F., 2018. Physiology, liver, pp.1-2.
- Kong, D.H., Kim, Y.K., Kim, M.R., Jang, J.H. and Lee, S., 2018. Emerging roles of vascular cell adhesion molecule-1 (VCAM-1) in immunological disorders and cancer. *International journal of molecular sciences*, 19(4), pp.1057.
- Konishi, T., Schuster, R.M. dan Lentsch, A.B. 2018. Proliferation of Hepatic Stellate Cells, Mediated by YAP and TAZ, contributes to liver repair and regeneration after liver ischemia-reperfusion injury. *American Journal of Physiology-Gastrointestinal and Liver Physiology*. 314(4):G471-G48, pp.1.
- Krihariyani, D., Manalu, E., Sari A.I., Hadi, T.P., Widada, S.T., Rizky, V.A., Supriyanta, B., Sugeng, Rahayu, M. 2024. *Patologi Klinis*, pp.161.
- Kükner, A., Soyler, G., Toros, P., Dede, G., Meriçli, F., Işık, S., Edebal, O. and Özoğul, C., 2021. Protective effect of Coriandrum sativum extract against inflammation and apoptosis in liver ischaemia/reperfusion injury. *Folia Morphologica*, 80(2), pp.363-371.

- Kulsoom, B., Shamsi, T.S., Afsar, N.A., Memon, Z., Ahmed, N. dan Hasnain, S.N. 2018. Bax, Bcl-2, and Bax/Bcl-2 as prognostic markers in acute myeloid leukemia: are we ready for Bcl-2-directed therapy?. *Cancer Manag Res.* 10:403-416, pp.2-3.
- Lala, V., Goyal, A. and Minter, D.A., 2021. Liver function tests. In *StatPearls [internet]*. StatPearls Publishing, pp.2-3.
- Li, Z., Wang, Y., Zhang, Y., Wang, X., Gao, B., Li, Y., Li, R., dan Wang, J. 2021. Protective Effects of Fisetin on Hepatic Ischemia-reperfusion Injury Through Alleviation of Apoptosis and Oxidative Stress. *Archives of Medical Research.* 52(2):163-173, pp.2-3.
- Lim, L.Y., Vidnovic, N., Ellisen, L.W. and Leong, C.O., 2009. Mutant p53 mediates survival of breast cancer cells. *British journal of cancer*, 101(9), pp.1606-1612.
- Liu T., Zhang L., Joo D., Cong Sun S. 2017. Nf-kB Signaling in inflammation. *Signal Transduction and Targeted Therapy*. Doi : doi.org/10.1038/sigtrans.2017,pp.23.
- Lu, T.F., Yang, T.H., Zhong, C.P., Shen, C., Lin, W.W., Gu, G.X., Xia, Q. and Xu, N., 2018. Dual effect of hepatic macrophages on liver ischemia and reperfusion injury during liver transplantation. *Immune network*, pp.18(3).
- Maharani, A.I., Riskierdi, F., Febriani, I., Kurnia, K.A., Rahman, N.A., Ilahi, N.F. and Farma, S.A., 2021. Peran antioksidan alami berbahan dasar pangan lokal dalam mencegah efek radikal bebas. In *Prosiding Seminar Nasional Biologi* (Vol. 1, No. 2, pp. 390-399).
- Mao, X.L., Cai, Y., Chen, Y.H., Wang, Y., Jiang, X.X., Ye, L.P. and Li, S.W., 2022. Novel targets and therapeutic strategies to protect against hepatic ischemia reperfusion injury. *Frontiers in Medicine*, 8, pp.757336.

- Maulina, M. 2018. *Zat-Zat yang Mempengaruhi Histopatologi Hepar*, pp.5-8.
- McGill, M.R., 2016. The past and present of serum aminotransferases and the future of liver injury biomarkers. *EXCLI journal*, 15, pp.817.
- Murata, K., Nakao, K., Hirata, N., Namba, K., Nomi, T., Kitamura, Y., Moriyama, K., Shintani, T., Iinuma, M. and Matsuda, H., 2009. Hydroxychavicol: A potent xanthine oxidase inhibitor obtained from the leaves of betel, Piper betle. *Journal of Natural Medicines*, 63, pp.355-359
- Naeim, F., 2012. *Atlas of hematopathology: morphology, immunophenotype, cytogenetics, and molecular approaches*. Academic press, pp.201.
- Ndrepepa, G., Holdenrieder, S. and Kastrati, A., 2023. Prognostic value of De Ritis ratio with aspartate aminotransferase and alanine aminotransferase within the reference range. *Clinica Chimica Acta*, 538, pp.46-52.
- Nguyen, L.T.T., Nguyen, T.T., Nguyen, H.N. dan Bui, Q.T.P. 2020. Simultaneous Determination of Active Compounds in Piper betle Linn. leaf extract and effect of extracting solvents on bioactivity. *Engineering Reports*. 2(10):e12246, pp.5-8.
- Ni, J., Wang, Y., Zhang, H., Sun, J.Z. and Tang, B.Z., 2021. Aggregation-induced generation of reactive oxygen species: mechanism and photosensitizer construction. *Molecules*, 26(2), pp.268.
- Prabu, S.M., Muthumani, M. dan Shagirtha, K. 2012. Protective effect of Piper Betle leaf extract against cadmium-induced oxidative stress and hepatic dysfunction in rats. *Saudi journal of Biological Sciences*. 19(2):229-239, pp: 14-16.
- Pramana, T.Y., 2021. *Pengaruh Ekstrak Etanol Kulit Manggis (Garcinia Mangostana L) Terhadap Pencegahan Fibrosis pada Hati Tikus Wistar yang Diinduksi*

Dengan Isoniazid (Kajian Ekspresi NF- κ B p65, TGF- β 1, E-selectin, Kadar SGPT, Ekspresi Kolagen-1, dan Fibrosis Hati) (Doctoral dissertation, UNS (Sebelas Maret University)), pp.7-9.

Putri, D. E. 2018. Uji Toksisitas Akut yang Diukur dengan Penentuan LD50 Ekstrak Daun Sirih (Piper betle L.) pada Mencit Jantan. Skripsi. Fakultas Farmasi Universitas Sumatera Utara, Medan, pp.1-2.

Putri, R.D. and Sofyanita, E.N., 2023. Perbedaan Hasil Pewarnaan Hematoxylin Eosin (HE) pada Histologi Kolon Mencit (Mus musculus) Berdasarkan Ketebalan Pemotongan Mikortom 3, 6 dan 9 μ m. *Jurnal Labora Medika*, 7(2), pp.31-38.

Radzuan, F.N.B.M., 2018. *Tampilan Imunohistokimia P53 pada Karsinoma Sel Skuamosa Rongga Mulut* (Doctoral dissertation, Universitas Sumatera Utara), pp.1-2.

Rahayu, K.M., Siregar, B. and Kurnia, I., 2016. Penilaian ekspresi protein MDM2 dan P53 sebagai prediktor respon radioterapi pada kanker serviks. *Bioma*, 12(1), pp.1-13.

Rampes, S. dan Ma, D. 2019. Hepatic ischemia-reperfusion injury in liver transplant setting: mechanisms and protective strategies. *Journal of biomedical research*. 33(4), pp.221-234.

Redza-Dutordoir, M. and Averill-Bates, D.A., 2016. Activation of apoptosis signalling pathways by reactive oxygen species. *Biochimica et Biophysica Acta (BBA)-Molecular Cell Research*, 1863(12), pp.2977-2992.

Rosida, A., 2016. Pemeriksaan laboratorium penyakit hepar. *Berkala Kedokteran*, 12(1), pp.123-131.

- Sadewa, A. H., Wasityastuti, W., dan Dewanto, V. C. 2020. *Comprehensive Biomedical Sciences: Sistem Gastrointestinal, Hepatobilier, Pankreas*. Gadjah Mada University Press. Yogyakarta. Indonesia, pp.105-108.
- Seo, J., Lee, U., Seo, S., Wibowo, A.E., Pongtuluran, O.B., Lee, K., Han, S.B. and Cho, S., 2022. Anti-inflammatory and antioxidant activities of methanol extract of Piper betle Linn.(Piper betle L.) leaves and stems by inhibiting NF- κ B/MAPK/Nrf2 signaling pathways in RAW 264.7 macrophages. *Biomedicine & Pharmacotherapy*, 155, pp.113734.
- Setiawan, H. Zuanisa A., Pambudi R.A. 2023. Asosiasi antara AST dan ALT pada Pasien COVID-19 dengan Komorbid di Klinik B Kota Tangerang tahun 2011, pp.11.
- Sharma, P., Nandave, M., Nandave, D., Yadav, S., Vargas-De-La-Cruz, C., Singh, S., Tandon, R., Ramniwas, S. and Behl, T., 2023. Reactive oxygen species (ROS)-mediated oxidative stress in chronic liver diseases and its mitigation by medicinal plants. *American Journal of Translational Research*, 15(11), pp.6321.
- Shubin, A.V., Demidyuk, I.V., Komissarov, A.A., Rafieva, L.M. and Kostrov, S.V., 2016. Cytoplasmic vacuolization in cell death and survival. *Oncotarget*, 7(34), pp.55863.
- Sibulesky L. 2013. Normal Liver Anatomy. *Clin Liver Dis*. 2(1) : 1-3. DOI: 10.1002/cld.124, pp.1-3.
- Suhrman, S., Tahir, T. and Yusuf, S., 2020. Efektifitas ekstrak tanaman jarak pagar (*Jatropha curcas* L.) terhadap penyembuhan luka: literatur review: Effectiveness of *Jatropha Curcas* L. Extract on Wound Healing: Literature

Review. *Jurnal Ilmiah Keperawatan (Scientific Journal of Nursing)*, 6(2), pp.184-191.

Suroto, H., Asriel, A., De Vega, B. and Samijo, S.K., 2021. Early and late apoptosis protein expression (Bcl-2, bax and p53) in traumatic brachial plexus injury. *Journal of Musculoskeletal & Neuronal Interactions*, 21(4), pp.528.

Suryadarma, I.G.A. 2007. Hepatic Ischemia Reperfusion Injury In Sepsis: Basis PathogeniC, pp.1-3.

Susanto, D., Lisdiana, L., Christijanti, W. and Iswari, R.S., 2021, December. Pengaruh Pemberian Ekstrak Black Garlic terhadap Kadar Alanine Aminotransferase (Alt) Dan Aspartate Aminotransferase (Ast) Tikus Yang Dipapar Asap Rokok. In *Prosiding Seminar Nasional Biologi* (Vol. 9, pp. 274-279).

Suzuki, S., Toledo-Pereyra, L.H., Rodriguez, F.J., dan Cejalvo, D. 1993. Neutrophil infiltration as an important factor in liver ischemia and reperfusion injury. Modulating effects of FK506 and cyclosporine. *Transplantation*. 55(6):1265-1272, pp.6.

Vernon, H., Wehrle, C.J., Alia, V.S.K. and Kasi, A., 2018. Anatomy, abdomen and pelvis, liver, pp.3-5.

Wang, L., Li, N., Lin, D. dan Zang, Y. 2017. Curcumin protects against hepatic ischemia/reperfusion induced injury through inhibiting TLR4/NF- κ B pathway. *Oncotarget*. 8(39):65414-65420, pp.1-6.

Wani, A.K., Akhtar, N., Mir, T.U.G., Singh, R., Jha, P.K., Mallik, S.K., Sinha, S., Tripathi, S.K., Jain, A., Jha, A. and Devkota, H.P., 2023. Targeting apoptotic pathway of cancer cells with phytochemicals and plant-based nanomaterials. *Biomolecules*, 13(2), pp.194.

- Wardani, G. 2023. Signal transduksi nanopartikel fucoidan sebagai protektor pada aorta tikus (*rattus norvegicus*) hiperglikemia, pp.257
- Wertheim, J. A., Petrowsky, H., Saab, S., Kupiec-Weglinski, J. W., dan Busuttil, R. W. 2011. Major Challenges Limiting Liver Transplantation in the United States. *American Journal of Transplantation : Official Journal of the American Society of Transplantation and the American Society of Transplant Surgeons*. 11 (9):1773–1784, pp.2-9.
- WHO. 2021. Hepatitis. URL: https://www.who.int/health-topics/hepatitis#tab=tab_1. Diakses tanggal 21 April 2023.
- Widiyatno, Y. and Muniroh, L., 2018. Dampak pemberian minyak goreng mengandung residu plastic isopropyl terhadap blood urea nitrogen kreatinin tikus putih galur Wistar, pp.1-3.
- Woolbright, B.L. dan Jaeschke, H. 2017. The impact of sterile inflammation in acute liver injury. *Journal of clinical and translational research*. 3(1):170-188, pp.2-11.
- Zhang, C., Liao, Y., Li, Q., Chen, M., Zhao, Q., Deng, R., Wu, C., Yang, A., Guo, Z., Wang, D. dan He, X. 2013. Recombinant adiponectin ameliorates liver ischemia reperfusion injury via activating the AMPK/eNOS pathway. *PloS one*. 8(6):e66382, pp.2-5.
- Zhang, Q., Zhang, L., Lin, G. and Luo, F., 2024. The protective role of vagus nerve stimulation in ischemia-reperfusion injury. *Heliyon*, pp.2-9.
- Zhu, R., Zeng, G., Chen, Y., Zhang, Q., Liu, B., Liu, J., Chen, H. dan Li, M. 2013. Oroxylin A accelerates liver regeneration in CCl₄-induced acute liver injury mice. *PLoS One*. 8(8):e71612, pp.5-8.