DAFTAR PUSTAKA

Adnan, S., Nelson, J. W., Ajami, N. J., Venna, V. R., Petrosino, J. F., Bryan, R. M. J., & Durgan, D. J. (2017). Alterations in the gut microbiota can elicit hypertension in rats. *Physiological Genomics*, *49*(2), 96–104. https://doi.org/10.1152/physiolgenomics.00081.2016

Akbar, M., Misbach, J., Rasyid, A., Alfa, A. Y., Syamsudin, T., Tjahjadi, Mi., Haddani, M. H., Zakaria, T. S., LAmalia, Birawa, A. B. P., Tugasworo, D., Setyopranoto, I., ERaharjo, Purwata, T. E., & Made, O. A. I. (2018). Clinical features of transient ischemic attack or ischemic stroke patients at high recurrence risk in Indonesia. *Neurology Asia*, *23*(2), 107–113.

Alawneh, K. Z., Al Qawasmeh, M., Raffee, L. A., Abuzayed, B., Bani Hani, D. A., Abdalla, K. M., Al-Mnayyis, A. M., & Fataftah, J. (2020). A snapshot of Ischemic stroke risk factors, sub-types, and its epidemiology: Cohort study. *Annals of Medicine and Surgery*, *59*, 101–105. https://doi.org/10.1016/j.amsu.2020.09.016

Ambresh, A., & Sanjeeth. (2021). Outcome assesment of acute ischemic stroke by NIHSS score. *IP Indian Journal of Neurosciences*, *7*(1), 26–32. https://doi.org/10.18231/j.ijn.2021.005

Armeli, F., Mengoni, B., Maggi, E., Mazzoni, C., Preziosi, A., Mancini, P., Businaro, R., Lenz, T., & Archer, T. (2022). Milmed Yeast Alters the LPS-Induced M1 Microglia Cells to Form M2 Anti-Inflammatory Phenotype. *Biomedicines*, *10*(12). https://doi.org/10.3390/biomedicines10123116

Arpaia, N., Campbell, C., Fan, X., Dikiy, S., Liu, H., Cross, J. R., Pfeffer, K., Coffer, P. J., Rudensky, A. Y., Donald, B., Marron, C. C., Metabolism, C., Sloan-kettering, M., & Biology, C. (2014). *HHS Public Access*. *504*(7480), 451–455. https://doi.org/10.1038/nature12726.Metabolites

Battaglini, D., Pimentel-Coelho, P. M., Robba, C., dos Santos, C. C., Cruz, F. F., Pelosi, P., & Rocco, P. R. M. (2020a). Gut Microbiota in Acute Ischemic Stroke: From Pathophysiology to Therapeutic Implications. In *Frontiers in Neurology* (Vol. 11). Frontiers Media S.A. https://doi.org/10.3389/fneur.2020.00598

Battaglini, D., Pimentel-Coelho, P. M., Robba, C., dos Santos, C. C., Cruz, F. F., Pelosi, P., & Rocco, P. R. M. (2020b). Gut Microbiota in Acute Ischemic Stroke: From Pathophysiology to Therapeutic Implications. In *Frontiers in Neurology* (Vol. 11). Frontiers Media S.A. https://doi.org/10.3389/fneur.2020.00598

Béjot, Y., Mossiat, C., Giroud, M., Prigent-Tessier, A., & Marie, C. (2011). Circulating and brain BDNF levels in stroke rats. relevance to clinical studies. *PLoS ONE*, *6*(12), 6–11. https://doi.org/10.1371/journal.pone.0029405

, & Clavel, T. (2007). Metabolic Diversity of the Intestinal Microbiota: lications for Health and Disease1,. *The Journal of Nutrition*, *137*(3), 5-755S. https://doi.org/10.1093/jn/137.3.751S

, A. K., Schirmer, M. D., Bretzner, M., Hong, S., Regenhardt, R. W., lfors, M., Donahue, K. L., Nardin, M. J., Dalca, A. V., Giese, A. K.,

Etherton, M. R., Hancock, B. L., Mocking, S. J. T., McIntosh, E. C., Attia, J., Benavente, O. R., Bevan, S., Cole, J. W., Donatti, A., … Rost, N. S. (2021). Outcome after acute ischemic stroke is linked to sex-specific lesion patterns. *Nature Communications*, *12*(1). https://doi.org/10.1038/s41467-021-23492-3

Borrelli, L., Aceto, S., Agnisola, C., De Paolo, S., Dipineto, L., Stilling, R. M., Dinan, T. G., Cryan, J. F., Menna, L. F., & Fioretti, A. (2016). Probiotic modulation of the microbiota-gut-brain axis and behaviour in zebrafish. *Scientific Reports*, *6*. https://doi.org/10.1038/srep30046

Budianto, P., Prabaningtyas, H., Putra, S. E., Mirawati, diah K., Muhammad, F., & Hafizan, M. (2021). *Stroke iskemik akut : dasar dan klinis*. *January*, 84.

Bushnell, C. D., Chaturvedi, S., Gage, K. R., Herson, P. S., Hurn, P. D., Jiménez, M. C., Kittner, S. J., Madsen, T. E., McCullough, L. D., McDermott, M., Reeves, M. J., & Rundek, T. (2018). Sex differences in stroke: Challenges and opportunities. In *Journal of Cerebral Blood Flow and Metabolism* (Vol. 38, Issue 12, pp. 2179–2191). SAGE Publications Ltd. https://doi.org/10.1177/0271678X18793324

Carabotti, M., Scirocco, A., Antonietta Maselli, M., & Severi, C. (2015). *The gut-brain axis: interactions between enteric microbiota, central and enteric nervous systems* (Vol. 28). www.annalsgastro.gr

Cerdó, T., Ruíz, A., Suárez, A., & Campoy, C. (2017). Probiotic, prebiotic, and brain development. In *Nutrients* (Vol. 9, Issue 11). MDPI AG. https://doi.org/10.3390/nu9111247

Chen, M. Q., Shi, W. R., Wang, H. Y., & Sun, Y. X. (2021). Sex differences of combined effects between hypertension and general or central obesity on ischemic stroke in a middle-aged and elderly population. *Clinical Epidemiology*, *13*, 197–206. https://doi.org/10.2147/CLEP.S295989

Chen, S., Wu, H., Klebe, D., Hong, Y., Zhang, J., & Tang, J. (2013). Regulatory T cell in stroke: A new paradigm for immune regulation. In *Clinical and Developmental Immunology* (Vol. 2013). https://doi.org/10.1155/2013/689827

Chidambaram, S. B., Rathipriya, A. G., Mahalakshmi, A. M., Sharma, S., Hediyal, T. A., Ray, B., Sunanda, T., Rungratanawanich, W., Kashyap, R. S., Qoronfleh, M. W., Essa, M. M., Song, B. J., & Monaghan, T. M. (2022). The Influence of Gut Dysbiosis in the Pathogenesis and Management of Ischemic Stroke. In *Cells* (Vol. 11, Issue 7). MDPI. https://doi.org/10.3390/cells11071239

Cuomo, M., Borrelli, L., Monica, R. Della, Coretti, L., De Riso, G., Di Durazzo, L. D. L., Fioretti, A., Lembo, F., Dinan, T. G., Cryan, J. F., Cocozza, S., & Chiariotti, L. (2021). Dna methylation profiles of tph1a and bdnf in gut and brain of l. Rhamnosus-treated zebrafish. *Biomolecules*, *11*(2), 1–13. https://doi.org/10.3390/biom11020142

Mushi, Z., Baili, W., Han, L., Enqi, W., Huanhu, Z., & Shuchun, L. 9). Differential Analysis of Hypertension-Associated Intestinal robiota. *International Journal of Medical Sciences*, *16*(6), 872–881. s://doi.org/10.7150/ijms.29322

Durgan, D. J., Lee, J., McCullough, L. D., & Bryan, R. M. J. (2019). Examining the Role of the Microbiota-Gut-Brain Axis in Stroke. *Stroke*, *50*(8), 2270–2277. https://doi.org/10.1161/STROKEAHA.119.025140

Eyileten, C., Sharif, L., Wicik, Z., Jakubik, D., Jarosz-Popek, J., Soplinska, A., Postula, M., Czlonkowska, A., Kaplon-Cieslicka, A., & Mirowska-Guzel, D. (2021). The Relation of the Brain-Derived Neurotrophic Factor with MicroRNAs in Neurodegenerative Diseases and Ischemic Stroke. *Molecular Neurobiology*, *58*(1), 329–347. https://doi.org/10.1007/s12035-020-02101-2

Fischer, U., Arnold, M., Nedeltchev, K., Brekenfeld, C., Ballinari, P., Remonda, L., Schroth, G., & Mattle, H. P. (2005). NIHSS score and arteriographic findings in acute ischemic stroke. *Stroke*, *36*(10), 2121–2125. https://doi.org/10.1161/01.STR.0000182099.04994.fc

Fukushima, Y., Uchida, S., Imai, H., Nakatomi, H., Kataoka, K., Saito, N., & Itaka, K. (2021). Treatment of ischemic neuronal death by introducing brain-derived neurotrophic factor mRNA using polyplex nanomicelle. *Biomaterials*, *270*. https://doi.org/10.1016/j.biomaterials.2021.120681

Guo, Y., Li, P., Guo, Q., Shang, K., Yan, D., Du, S., & Lu, Y. (2013). Pathophysiology and biomarkers in acute ischemic stroke - A review. *Tropical Journal of Pharmaceutical Research*, *12*(6), 1097–1105. https://doi.org/10.4314/tjpr.v12i6.35

Hasibuan, F. E. B., & Kolondam, B. J. (2017). Interaksi Antara Mikrobiota Usus Dan Sistem Kekebalan Tubuh Manusia. *Jurnal Ilmiah Sains*, *17*(1), 35. https://doi.org/10.35799/jis.17.1.2017.15221

Heitsch, L., Ibanez, L., Carrera, C., Binkley, M. M., Strbian, D., Tatlisumak, T., Bustamante, A., Ribó, M., Molina, C., Dávalos, A., López-Cancio, E., Muñoz-Narbona, L., Soriano-Tárraga, C., Giralt-Steinhauer, E., Obach, V., Slowik, A., Pera, J., Lapicka-Bodzioch, K., Derbisz, J., … Lee, J.-M. (2021). Early Neurological Change After Ischemic Stroke Is Associated With 90-Day Outcome. *Stroke*, *52*(1), 132–141. https://doi.org/10.1161/STROKEAHA.119.028687

Henry, N., Frank, J., McLouth, C., Trout, A. L., Morris, A., Chen, J., Stowe, A. M., Fraser, J. F., & Pennypacker, K. (2022). Short Chain Fatty Acids Taken at Time of Thrombectomy in Acute Ischemic Stroke Patients Are Independent of Stroke Severity But Associated With Inflammatory Markers and Worse Symptoms at Discharge. *Frontiers in Immunology*, *12*. https://doi.org/10.3389/fimmu.2021.797302

Hooper, L. V., Littman, D. R., & Macpherson, A. J. (2012). Interactions between the microbiota and the immune system. *Science*, *336*(6086), 1268–1273. https://doi.org/10.1126/science.1223490

Iadecola, C., & Anrather, J. (2011). The immunology of stroke: From mechanisms to translation. In *Nature Medicine* (Vol. 17, Issue 7, pp. 796–808). ;://doi.org/10.1038/nm.2399

, Takamatsu, Y., Okamura, M., & Maejima, H. (2021). Ipsilateral BDNF NA expression in the motor cortex positively correlates with motor tion of the affected forelimb after intracerebral hemorrhage. *Brain earch*, *1767*. https://doi.org/10.1016/j.brainres.2021.147536

Irie, F., Kamouchi, M., Hata, J., Matsuo, R., Wakisaka, Y., Kuroda, J., Ago, T., Kitazono, T., Ishitsuka, T., Fujimoto, S., Ibayashi, S., Kusuda, K., Arakawa, S., Tamaki, K., Sadoshima, S., Irie, K., Fujii, K., Okada, Y., Yasaka, M., … Fukushima, Y. (2015). Sex differences in short-term outcomes after acute ischemic stroke: The fukuoka stroke registry. *Stroke*, *46*(2), 471–476. https://doi.org/10.1161/STROKEAHA.114.006739

Jandhyala, S. M. (2015). Role of the normal gut microbiota. *World Journal of Gastroenterology*, *21*(29), 8787. https://doi.org/10.3748/wjg.v21.i29.8787

Jiang, M., Ma, C., Li, H., Shen, H., Li, X., Sun, Q., & Chen, G. (2020). Sex Dimorphisms in Ischemic Stroke: From Experimental Studies to Clinic. In *Frontiers in Neurology* (Vol. 11). Frontiers Media S.A. https://doi.org/10.3389/fneur.2020.00504

Karantali, E., Kazis, D., Papavasileiou, V., Prevezianou, A., Chatzikonstantinou, S., Petridis, F., McKenna, J., Luca, A. C., Trus, C., Ciobica, A., & Mavroudis, I. (2021a). Serum bdnf levels in acute stroke: A systematic review and meta-analysis. *Medicina (Lithuania)*, *57*(3). https://doi.org/10.3390/medicina57030297

Karantali, E., Kazis, D., Papavasileiou, V., Prevezianou, A., Chatzikonstantinou, S., Petridis, F., McKenna, J., Luca, A. C., Trus, C., Ciobica, A., & Mavroudis, I. (2021b). Serum bdnf levels in acute stroke: A systematic review and meta-analysis. *Medicina (Lithuania)*, *57*(3). https://doi.org/10.3390/medicina57030297

Karantali, E., Kazis, D., Papavasileiou, V., Prevezianou, A., Chatzikonstantinou, S., Petridis, F., McKenna, J., Luca, A. C., Trus, C., Ciobica, A., & Mavroudis, I. (2021c). Serum bdnf levels in acute stroke: A systematic review and meta-analysis. *Medicina (Lithuania)*, *57*(3). https://doi.org/10.3390/medicina57030297

Kaur, I. P., & Diseases, I. (2021). Probiotic Research in Therapeutics. In *Probiotic Research in Therapeutics* (Vol. 1). https://doi.org/10.1007/978-981-15-8214-1

Kim, M., Oh, J., Lee, Y., Lee, E. H., Ko, S. H., Jeong, J. H., Park, C. H., & Lee, M. (2022). Delivery of self-replicating messenger RNA into the brain for the treatment of ischemic stroke. *Journal of Controlled Release*, *350*, 471–485. https://doi.org/10.1016/J.JCONREL.2022.08.049

Kotlęga, D., Peda, B., Zembroń-Łacny, A., Gołąb-Janowska, M., & Nowacki, P. (2017). The role of brain-derived neurotrophic factor and its single nucleotide polymorphisms in stroke patients. *Neurologia i Neurochirurgia Polska*, *51*(3), 240–246. https://doi.org/10.1016/j.pjnns.2017.02.008

Lakhan, S. E., Kirchgessner, A., & Hofer, M. (2009). Inflammatory mechanisms in ischemic stroke: Therapeutic approaches. *Journal of Translational Medicine*, *7*(May 2014). https://doi.org/10.1186/1479-5876-7-97

[illegible]Aigle, J., Atadja, L., Quaicoe, V., Honarpisheh, P., Ganesh, B. P., [illegible]san, A., Graf, J., Petrosino, J., Putluri, N., Zhu, L., Durgan, D. J., Bryan, [illegible]. J., McCullough, L. D., & Venna, V. R. (2020). Gut Microbiota-[illegible]ved Short-Chain Fatty Acids Promote Poststroke Recovery in

Aged Mice. *Circulation Research*, *127*(4), 453–465. https://doi.org/10.1161/CIRCRESAHA.119.316448

Li, N., Weng, X., Sun, C., Wu, X., Lu, M., Si, Y., Ye, X., Wang, T., Yu, X., Zhao, X., Wei, N., & Wang, X. (2019). Change of intestinal microbiota in cerebral ischemic stroke patients. *BMC Microbiology*, *19*(1). https://doi.org/10.1186/s12866-019-1552-1

Lima Giacobbo, B., Doorduin, J., Klein, H. C., Dierckx, R. A. J. O., Bromberg, E., & de Vries, E. F. J. (2019). Brain-Derived Neurotrophic Factor in Brain Disorders: Focus on Neuroinflammation. *Molecular Neurobiology*, *56*(5), 3295–3312. https://doi.org/10.1007/s12035-018-1283-6

Liu, L., Ni, X., Tian, T., Li, X., Li, F., Sun, M., Chen, J., Zhou, S. Y., & Zhao, L. (2020). Effect of regulating gut microbiota using probiotics on functional changes in the brain: Protocol for a systematic review. In *BMJ Open* (Vol. 10, Issue 8). BMJ Publishing Group. https://doi.org/10.1136/bmjopen-2020-037582

Liu, X., Zhang, Y., Chu, J., Zheng, J., Cheng, X., Li, X., & Long, J. (2021a). Effect of probiotics on the nutritional status of severe stroke patients with nasal feeding that receive enteral nutrition: A protocol for systematic review and meta-analysis of randomized controlled trials. *Medicine*, *100*(17), e25657. https://doi.org/10.1097/MD.0000000000025657

Liu, X., Zhang, Y., Chu, J., Zheng, J., Cheng, X., Li, X., & Long, J. (2021b). Effect of probiotics on the nutritional status of severe stroke patients with nasal feeding that receive enteral nutrition: A protocol for systematic review and meta-analysis of randomized controlled trials. *Medicine*, *100*(17), e25657. https://doi.org/10.1097/MD.0000000000025657

Lyden, P. (2017). Using the National Institutes of Health Stroke Scale. *Stroke*, *48*(2), 513–519. https://doi.org/10.1161/STROKEAHA.116.015434

Mähler, A., Wilck, N., Rauch, G., Dechend, R., & Müller, D. N. (2020). Effect of a probiotic on blood pressure in grade 1 hypertension (HYPRO): protocol of a randomized controlled study. *Trials*, *21*(1), 1032. https://doi.org/10.1186/s13063-020-04973-0

Maqsood, R., & Stone, T. W. (2016). The Gut-Brain Axis, BDNF, NMDA and CNS Disorders. *Neurochemical Research*, *41*(11), 2819–2835. https://doi.org/10.1007/s11064-016-2039-1

Markowiak, P., & Śliżewska, K. (2017). Effects of probiotics, prebiotics, and synbiotics on human health. In *Nutrients* (Vol. 9, Issue 9). MDPI AG. https://doi.org/10.3390/nu9091021

Maukonen, J., & Saarela, M. (2015). Human gut microbiota: does diet matter? *Proceedings of the Nutrition Society*, *74*(1), 23–36. https://doi.org/10.1017/S0029665114000688

Misbach, J. (2007). *Pandangan Umum Mengenai Stroke dalam Unit Stroke, ajemen Stroke Secara Komprehensif*. FKUI.

A. M., Vicente, L. C. C., Abreu, M. N. S., Vale Sant'Anna, R., Vieira, E. I., de Souza, L. C., de Miranda, A. S., Rachid, M. A., & Teixeira, A. L. 9). Plasma Levels of Brain-Derived Neurotrophic Factor are Associated Prognosis in the Acute Phase of Ischemic Stroke. *Journal of Stroke and*

Cerebrovascular Diseases, *28*(3), 735–740. https://doi.org/10.1016/j.jstrokecerebrovasdis.2018.11.013

Mudjihartini, N. (2021). Brain-derived neurotrophic factor (BDNF) dan proses penuaan: sebuah tinjauan. *Jurnal Biomedika Dan Kesehatan*, *4*(3), 120–129. https://doi.org/10.18051/jbiomedkes.2021.v4.120-129

Norman, K., Eriksson, M., & von Euler, M. (2022). Sex Differences in Ischemic Stroke Within the Younger Age Group: A Register-Based Study. *Frontiers in Neurology*, *13*. https://doi.org/10.3389/fneur.2022.793181

Ohya, Y., Matsuo, R., Sato, N., Irie, F., Nakamura, K., Wakisaka, Y., Ago, T., Kamouchi, M., & Kitazono, T. (2022). Causes of ischemic stroke in young adults versus non-young adults: A multicenter hospital-based observational study. *PLoS ONE*, *17*(7 July). https://doi.org/10.1371/journal.pone.0268481

Olsson, A., Gustavsen, S., Nguyen, T. D., Nyman, M., Langkilde, A. R., Hansen, T. H., Sellebjerg, F., Oturai, A. B., & Bach Søndergaard, H. (2021). Serum Short-Chain Fatty Acids and Associations With Inflammation in Newly Diagnosed Patients With Multiple Sclerosis and Healthy Controls. *Frontiers in Immunology*, *12*(May), 1–13. https://doi.org/10.3389/fimmu.2021.661493

Ong, C. Ter, Wong, Y. S., Sung, S. F., Wu, C. S., Hsu, Y. C., Su, Y. H., & Hung, L. C. (2017). Sex-related differences in the risk factors for in-hospital mortality and outcomes of ischemic stroke patients in rural areas of Taiwan. *PLoS ONE*, *12*(9). https://doi.org/10.1371/journal.pone.0185361

Pevsner-Fischer, M., Blacher, E., Tatirovsky, E., Ben-Dov, I. Z., & Elinav, E. (2017). The gut microbiome and hypertension. *Current Opinion in Nephrology and Hypertension*, *26*(1), 1–8. https://doi.org/10.1097/MNH.0000000000000293

Powers, W. J., Rabinstein, A. A., Ackerson, T., Adeoye, O. M., Bambakidis, N. C., Becker, K., Biller, J., Brown, M., Demaerschalk, B. M., Hoh, B., Jauch, E. C., Kidwell, C. S., Leslie-Mazwi, T. M., Ovbiagele, B., Scott, P. A., Sheth, K. N., Southerland, A. M., Summers, D. v., & Tirschwell, D. L. (2019). Guidelines for the early management of patients with acute ischemic stroke: 2019 update to the 2018 guidelines for the early management of acute ischemic stroke a guideline for healthcare professionals from the American Heart Association/American Stroke A. In *Stroke* (Vol. 50, Issue 12). https://doi.org/10.1161/STR.0000000000000211

Prodjohardjono, A., Sutarni, S., & Setyopranoto, I. (2020). Serum brain-derived neurotrophic factor (BDNF) level may predict the functional outcome of acute ischemic stroke patients. *Biomedical and Pharmacology Journal*, *13*(4), 1963–1973. https://doi.org/10.13005/BPJ/2075

Qiao, H. J., Li, Z. Z., Wang, L. M., Sun, W., Yu, J. C., & Wang, B. (2017). Association of lower serum Brain-derived neurotrophic factor levels with larger infarct volumes in acute ischemic stroke. *Journal of N roimmunology*, *307*, 69–73. s://doi.org/10.1016/j.jneuroim.2017.04.002

tika, S. N., Wahyuningrum, D. R., Putri, V. A., & Aisy, R. (2021). BIOTICS FOR ACUTE ISCHEMIC STROKE. *International Journal of*

Pharmacy and Pharmaceutical Sciences, 1–10. https://doi.org/10.22159/ijpps.2021v13i5.41110

Retnaningsih, Padang, B. A., Kartikasari, W., Aritonang, C. R. L., Husni, A., & Jaeri, S. (2021). The Association Between Serum Biomarker Levels and Clinical Outcomes among Acute Ischemic Stroke Patients. *Acta Scientific Neurology*, *4*(7), 15–21.

Roy-O'Reilly, M., & McCullough, L. D. (2018). Age and sex are critical factors in ischemic stroke pathology. In *Endocrinology* (Vol. 159, Issue 8, pp. 3120–3131). Oxford University Press. https://doi.org/10.1210/en.2018-00465

Sacco, R. L., Kasner, S. E., Broderick, J. P., Caplan, L. R., Connors, J. J., Culebras, A., Elkind, M. S. V., George, M. G., Hamdan, A. D., Higashida, R. T., Hoh, B. L., Janis, L. S., Kase, C. S., Kleindorfer, D. O., Lee, J. M., Moseley, M. E., Peterson, E. D., Turan, T. N., Valderrama, A. L., & Vinters, H. v. (2013). An updated definition of stroke for the 21st century: A statement for healthcare professionals from the American heart association/American stroke association. *Stroke*, *44*(7), 2064–2089. https://doi.org/10.1161/STR.0b013e318296aeca

Sadler, R., Cramer, J. V., Heindl, S., Kostidis, S., Betz, D., Zuurbier, K. R., Northoff, B. H., Heijink, M., Goldberg, M. P., Plautz, E. J., Roth, S., Malik, R., Dichgans, M., Holdt, L. M., Benakis, C., Giera, M., Stowe, A. M., & Liesz, A. (2020a). Short-chain fatty acids improve poststroke recovery via immunological mechanisms. *Journal of Neuroscience*, *40*(5), 1162–1173. https://doi.org/10.1523/JNEUROSCI.1359-19.2019

Sadler, R., Cramer, J. v, Heindl, S., Kostidis, S., Betz, D., Zuurbier, K. R., Northoff, B. H., Heijink, M., Goldberg, M. P., Plautz, E. J., Roth, S., Malik, R., Dichgans, M., Holdt, L. M., Benakis, C., Giera, M., Stowe, A. M., & Liesz, A. (2020b). Short-Chain Fatty Acids Improve Poststroke Recovery via Immunological Mechanisms. *The Journal of Neuroscience : The Official Journal of the Society for Neuroscience*, *40*(5), 1162–1173. https://doi.org/10.1523/JNEUROSCI.1359-19.2019

Sahin, U., Karikó, K., & Türeci, Ö. (2014). MRNA-based therapeutics-developing a new class of drugs. In *Nature Reviews Drug Discovery* (Vol. 13, Issue 10, pp. 759–780). Nature Publishing Group. https://doi.org/10.1038/nrd4278

Sarecka-Hujar, B., & Kopyta, I. (2021). The impact of sex on arterial ischemic stroke in young patients: From stroke occurrence to poststroke consequences. In *Children* (Vol. 8, Issue 3). MDPI AG. https://doi.org/10.3390/children8030238

Savigamin, C., Samuthpongtorn, C., Mahakit, N., Nopsopon, T., Heath, J., & Pongpirul, K. (2022). Probiotic as a Potential Gut Microbiome Modifier for Stroke Treatment: A Systematic Scoping Review of In Vitro and In Vivo Studies. In *Nutrients* (Vol. 14, Issue 17). MDPI. ;://doi.org/10.3390/nu14173661

V. K. (2016). Cerebrovascular Disease. In *International Encyclopedia of lic Health* (Second Edi, Vol. 1). Elsevier. https://doi.org/10.1016/B978--803678-5.00058-8

Sherwin, E., Dinan, T. G., & Cryan, J. F. (2018). Recent developments in understanding the role of the gut microbiota in brain health and disease. *Annals of the New York Academy of Sciences*, *1420*(1), 5–25. https://doi.org/10.1111/nyas.13416

Singh, V., Sadler, R., Heindl, S., Llovera, G., Roth, S., Benakis, C., & Liesz, A. (2018). The gut microbiome primes a cerebroprotective immune response after stroke. *Journal of Cerebral Blood Flow and Metabolism : Official Journal of the International Society of Cerebral Blood Flow and Metabolism*, *38*(8), 1293–1298. https://doi.org/10.1177/0271678X18780130

Song, S.-Y., Zhao, X.-X., Rajah, G., Hua, C., Kang, R., Han, Y., Ding, Y., & Meng, R. (2019). Clinical Significance of Baseline Neutrophil-to-Lymphocyte Ratio in Patients With Ischemic Stroke or Hemorrhagic Stroke: An Updated Meta-Analysis. *Frontiers in Neurology*, *10*(October). https://doi.org/10.3389/fneur.2019.01032

Sotomayor-Sobrino, M. A., Ochoa-Aguilar, A., Méndez-Cuesta, L. A., & Gómez-Acevedo, C. (2019). *NEUROLOGÍA Interacciones neuroinmunológicas en el ictus*. *34*(5), 326–335. https://doi.org/10.1016/j.nrl.2016.08.003

Sucharew, H., Khoury, J., Moomaw, C. J., Alwell, K., Kissela, B. M., Belagaje, S., Adeoye, O., Khatri, P., Woo, D., Flaherty, M. L., Ferioli, S., Heitsch, L., Broderick, J. P., & Kleindorfer, D. (2013). Profiles of the national institutes of health stroke scale items as a predictor of patient outcome. *Stroke*, *44*(8), 2182–2187. https://doi.org/10.1161/STROKEAHA.113.001255

Sun, H., Gu, M., Li, Z., Chen, X., & Zhou, J. (2022). Gut Microbiota Dysbiosis in Acute Ischemic Stroke Associated With 3-Month Unfavorable Outcome. *Frontiers in Neurology*, *12*. https://doi.org/10.3389/fneur.2021.799222

Tan, C., Wu, Q., Wang, H., Gao, X., Xu, R., Cui, Z., Zhu, J., Zeng, X., Zhou, H., He, Y., & Yin, J. (2021). Dysbiosis of Gut Microbiota and Short-Chain Fatty Acids in Acute Ischemic Stroke and the Subsequent Risk for Poor Functional Outcomes. *Journal of Parenteral and Enteral Nutrition*, *45*(3), 518–529. https://doi.org/10.1002/jpen.1861

Tang, M., Yao, M., Zhu, Y., Peng, B., Zhou, L., & Ni, J. (2020). Sex differences of ischemic stroke in young adults—A single-center Chinese cohort study. *Journal of Stroke and Cerebrovascular Diseases*, *29*(9). https://doi.org/10.1016/j.jstrokecerebrovasdis.2020.105087

Thornell, A., & Salami, M. (2021). *Interplay of Good Bacteria and Central Nervous System: Cognitive Aspects and Mechanistic Considerations*. https://doi.org/10.3389/fnins.2021.613120

Tungland, B. (2018). Short-Chain Fatty Acid Production and Functional Aspects on Host Metabolism. In *Human Microbiota in Health and Disease* (pp. 37–106). Elsevier. https://doi.org/10.1016/b978-0-12-814649-1.00002-8

Wang, J., Huang, Q., Ding, J., & Wang, X. (2019a). Elevated serum levels of [illegible]n-derived neurotrophic factor and miR-124 in acute ischemic stroke [illegible]ents and the molecular mechanism. *3 Biotech*, *9*(11), 1–6. [illegible]s://doi.org/10.1007/s13205-019-1914-2

Huang, Q., Ding, J., & Wang, X. (2019b). Elevated serum levels of [illegible]n-derived neurotrophic factor and miR-124 in acute ischemic stroke

patients and the molecular mechanism. *3 Biotech*, *9*(11). https://doi.org/10.1007/s13205-019-1914-2

Wang, Y., Wu, Y., Wang, Y., Xu, H., Mei, X., Yu, D., Wang, Y., & Li, W. (2017). Antioxidant properties of probiotic bacteria. *Nutrients*, *9*(5). https://doi.org/10.3390/nu9050521

Wei, M. H. Q. L. Z. L. Y. X. J. (2021). Intestinal Barrier dysfunction participates in the pathophysiology of Ischemic Stroke. *CNS and Neurological Disorders- Drug Target*, *20*(5), 401–416.

Winek, K., Dirnagl, U., & Meisel, A. (2016). The Gut Microbiome as Therapeutic Target in Central Nervous System Diseases: Implications for Stroke. *Neurotherapeutics : The Journal of the American Society for Experimental NeuroTherapeutics*, *13*(4), 762–774. https://doi.org/10.1007/s13311-016-0475-x

Wouters, A., Nysten, C., Thijs, V., & Lemmens, R. (2018). Prediction of Outcome in Patients With Acute Ischemic Stroke Based on Initial Severity and Improvement in the First 24 h. *Frontiers in Neurology*, *9*. https://doi.org/10.3389/fneur.2018.00308

Xia, G.-H., You, C., Gao, X.-X., Zeng, X.-L., Zhu, J.-J., Xu, K.-Y., Tan, C.-H., Xu, R.-T., Wu, Q.-H., Zhou, H.-W., He, Y., & Yin, J. (2019). Stroke Dysbiosis Index (SDI) in Gut Microbiome Are Associated With Brain Injury and Prognosis of Stroke. *Frontiers in Neurology*, *10*, 397. https://doi.org/10.3389/fneur.2019.00397

Yamashiro, K., Kurita, N., Urabe, T., & Hattori, N. (2021). Role of the Gut Microbiota in Stroke Pathogenesis and Potential Therapeutic Implications. *Annals of Nutrition and Metabolism*, 1–9. https://doi.org/10.1159/000516398

Yamashiro, Y. (2017). Gut Microbiota in Health and Disease. *Annals of Nutrition & Metabolism*, *71*(3–4), 242–246. https://doi.org/10.1159/000481627

Yang, J. L., Mukda, S., & Chen, S. der. (2018). Diverse roles of mitochondria in ischemic stroke. *Redox Biology*, *16*(March), 263–275. https://doi.org/10.1016/j.redox.2018.03.002

Zhang, J., Tang, Q., & Zhu, L. (2021). Could the Gut Microbiota Serve as a Therapeutic Target in Ischemic Stroke? *Evidence-Based Complementary and Alternative Medicine*, *2021*. https://doi.org/10.1155/2021/1391384

Zhang, S., Jin, M., Ren, J., Sun, X., Zhang, Z., Luo, Y., & Sun, X. (2023). New insight into gut microbiota and their metabolites in ischemic stroke: A promising therapeutic target. *Biomedicine & Pharmacotherapy*, *162*, 114559. https://doi.org/10.1016/J.BIOPHA.2023.114559

Zhang, X., Wang, X., Zhao, H., Cao, R., Dang, Y., & Yu, B. (2023). Imbalance of Microbacterial Diversity Is Associated with Functional Prognosis of Stroke. *Neural Plasticity*, *2023*, 6297653. https://doi.org/10.1155/2023/6297653

Zhang, Z. H., Wu, L. N., Song, J. G., & Li, W. Q. (2012). Correlations between ıitive impairment and brain-derived neurotrophic factor expression in the ocampus of post-stroke depression rats. *Molecular Medicine Reports*, , 889–893. https://doi.org/10.3892/mmr.2012.1009

LAMPIRAN

1. Etik Penelitian

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
Contact Person: dr. Agussalim Bukhari,.MMed.PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK
Nomor : 333/UN4.6.4.5.31/ PP36/ 2022

Tanggal: 8 Juli 2022

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH22050203	No Sponsor Protokol	
Peneliti Utama	**dr. Andi Weri Sompa,M.Kes, SpN**	Sponsor	
Judul Peneliti	Analisis Luaran Klinis Strok Iskemik Akut dengan intervensi Probiotik : Perubahan kadar SCFA, BDNF, dan mRNA BDNF		
No Versi Protokol	**2**	Tanggal Versi	**8 Juli 2022**
No Versi PSP	**2**	Tanggal Versi	**8 Juli 2022**
Tempat Penelitian	RSUP Dr. Wahidin Sudirohusodo dan RS Jejajring Makassar		
Jenis Review	☐ Exempted ☐ Expedited ☒ Fullboard Tanggal **19 Mei 2022**	Masa Berlaku **8 Juli 2022** sampai **8 Juli 2023**	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama **Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)**	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama **dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)**	Tanda tangan	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

2. Kuesioner

Kode : .....
Nama : .....
Usia : .....
Jenis Kelamin : .....
Suku : .....
Alamat : .....
Food Recall : .....
Alergi : .....
Tanggal Mulai Probiotik : .....
Tanggal Selesai Probiotik : .....
Tanggal Mulai kelompok Kontrol : .....
Tanggal Selesai Kelompok Kontrol : .....
NIHSS Pre : .....
NIHSS Post : .....
Hasil CT Scan : .....
.....
.....

3. NIHSS

NIHSS

No	Kriteria	Respon dan Skor	Skor Hasil Pemeriksaan
1A	Tingkat kesadaran	0: Sadar, responsif	
		1: Mengantuk, dapat dibangunkan dengan stimulus minor	
		2: Obtunded, membutuhkan stimulasi berulang atau stimulasi kuat untuk mempertahankan atensi	
		3: Koma/Tidak respon/hanya reflex	
	gkat kesadaran tanyaan (2 tanyaan)	0: Menjawab dua pertanyaan dengan benar	
		1: Menjawab satu pertanyaan dengan benar / terpasang tuba endotrakeal / disartria berat / kendala bahasa	

No	Kriteria	Respon dan Skor	Skor Hasil Pemeriksaan
		2: Jawaban kedua pertanyaan salah / afasia/ stupor	
1C	Respon terhadap perintah (2 perintah) perintah buka tutup mata, dan menggenggam	0: Melakukan kedua perintah dengan benar	
		1: Melakukan satu perintah dengan benar	
		2: Melakukan kedua perintah dengan salah / koma	
2	Pandangan (Gaze) hanya horizontal gaze yang dinilai	0: Pergerakan horisontal normal	
		1: Partial Gaze Palsy/ paresis nervus kranial	
		2: Complete Gaze Palsy (Deviasi konjugat / gaze palsy)	
3	Lapangan pandang pada pasien tidak sadar dapat diperiksa refleks ancam	0: Tidak ada defek lapangan pandang	
		1: Hemianopia parsial	
		2: Hemianopia komplit	
		3: Bilateral hemianopia	
4	Pergerakan Fasial	0: Normal simetris	
		1: Kelemahan fasial minor (lipatan nasolabial mendatar, asimetris saat tersenyum)	
		2: Kelemahan fasial parsial (kelamahan total/hampir total wajah bagan bawah)	
		3: Kelemahan fasial komplit unilateral atau bilateral (kelamahan di wajah atas maupun bawah) / koma	
5	Fungsi Motorik ekstrimitas atas. a. Kanan b. Kiri Diperiksa dengan meminta pasien ekstensi lengan 90^0 (duduk) atau 45^0 (berbaring)	0: Tidak ada kelamahan. Dapat menahan lengan atau tungkai selama 10 detik.	
		1: Bergeser turun sebelum 10 detik	
		2: Usaha melawan gravitasi, jatuh menyentuh ranjang	
		3: Tidak ada usaha melawan gravitasi	
6	Fungsi motorik Ekstrimitas bawah a. Kanan b. Kiri Pasien diminta mengangkat tungkai 30^o	0: Tidak ada kelamahan. Dapat menahan lengan atau tungkai selama 10 detik.	
		1: Bergeser turun sebelum 10 detik	
		2: Usaha melawan gravitasi, jatuh menyentuh ranjang	
		3: Tidak ada usaha melawan gravitasi	
		4: Tidak ada pergerakan / koma	
7	Ataxia ekstrimitas Lakukan tes telunjuk hidung dan *heel-shin*	0: Tidak ada ataxia / koma	
		1: Ataxia pada satu ekstrimitas	
		2: Ataxia pada dua estrimitas	
8	Sensori dengan tes sensori atau stimulus nyeri pada pasien kesadaran menurun. Pasien afasia atau penurunan kesadaran memiliki nilai 0 atau 1	0: Tidak ada gangguan sensori	
		1: Gangguan Sensori ringan (hipesthesia)	
		2: Gangguan sensori berat (anesthesia) / koma	
		0: Normal	

No	Kriteria	Respon dan Skor	Skor Hasil Pemeriksaan
	Bahasa: dapat dinilai dengan meminta pasien menjabarkan gambar dibawah, menamai benda yang ada di gambar, atau membaca kalimat di bawah.	1: Afasia ringan: pasien mengalami gangguan kelancaran bicara dan komperhensi, namun tanpa limitasi berat terhadap ekspresi ide.	
		2: Afasia Berat: Seluruh komunikasi dilakukan dengan ekspresi terfragmen, membutuhkan alat bantu, atau tebakan dari pendengar.	
		3: Mute atau afasia global / koma	
10	Artikulasi: pasien diminta menyebutkan kalimat dibaawah	0: Normal	
		1: Disartria ringan: pasien berbicara tidak jelas pada beberapa kata dan dapat dipahami dengan keterbatasan	
		2: Disartria Berat: pasien berbicara tidak jelas, tanpa adanya disfasia atau anarthia. / koma	
11	Inatensi / *Extinct*: diperiksa inatensi terhadap domain visual, taktil, auditori, spasial, atau inatensi personal.	0: Tidak ada	
		1: Ringan (satu modalitas sensori)	
		2: Berat (Dua Modalitas sensori) / koma	

4. Master Data

a. Intervensi

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Probiotik	Tanggal Selesai Probiotik	NIHSS Pre	NIHSS Post	Ket
Ai 1	58	P	Sanger, Manado	Jl. Sungai Limboto Lr. 38, No. 7c	Biasa	17/09/2022	02/10/2022	5		
Bi 1	58	P	Sanger, Manado	Jl. Sungai Limboto Lr. 38, No. 7c	Biasa	17/09/2022	02/10/2022		3	
Ai 2	58	L	Bugis	Dusun Bengo, Desa Limapoccoe, Kec. Cenrana	Biasa	18/09/2022	02/10/2022	9		DO: Pasien keluar daerah
Ai 3	41	P	Bugis	Jl. Tinumbu lr. 165 C	Biasa	21/09/2022	05/10/2022	4		
Bi 3	41	P	Bugis	Jl. Tinumbu lr. 165 C	Biasa	21/09/2022	05/10/2022		2	
Ai 4	51	L	Bugis	jl. Barukang I, No 46 Kel. Pattingalloang Kec. Ujung Tanah	Biasa	21/09/2022	05/10/2022	5		
Bi 4	51	L	Bugis	jl. Barukang I, No 46 Kel. Pattingalloang Kec. Ujung Tanah	Biasa	21/09/2022	05/10/2022		1	
Ai 5	60	L	Bugis	Jl. Skarda N 2, No. 3 Rt 05/ RW 016	Biasa	22/09/2022	06/10/2022	5		
			Bugis	Jl. Skarda N 2, No. 3 Rt 05/ RW 016	Biasa	22/09/2022	06/10/2022		0	
			Makassar	Btn Sejahtera permai E/12 Rt 05, Rw 02, Bonto-Bontoa Sombaopu	Biasa	22/09/2022	06/10/2022	6		

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Probiotik	Tanggal Selesai Probiotik	NIHSS Pre	NIHSS Post	Ket
Bi 6	64	P	Makassar	Btn Sejahtera permai E/12 Rt 05, Rw 02, Bonto-Bontoa Sombaopu	Biasa	22/09/2022	06/10/2022		3	
Ai 7	62	P	Makassar	Jl. Tinumbu lr 165c	Biasa	28/09/2022	12/10/2022	5		DO: Pasien pindah RS daerah berobat
Ai 8	48	L	Makassar	Jl. Barukang Raya 17	Biasa	06/10/2022	20/10/2022	7		
Bi 8	48	L	Makassar	Jl. Barukang Raya 17	Biasa	06/10/2022	20/10/2022		7	
Ai 9	47	L	Makassar	Jl. Andalas, Kompleks TNI AL Dewaruci Blok B2 no 33	Biasa	06/10/2022	20/10/2022	1		
Bi 9	47	L	Makassar	Jl. Andalas, Kompleks TNI AL Dewaruci Blok B2 no 33	Biasa	06/10/2022	20/10/2022		0	
Ai 10	54	L	Bugis	Dusun Daru'mung Desa Bulogading, Kec. Bontonompo Kab. Gowa (Bantimurung) dibelakng Puskesmas	Biasa	07/10/2022	21/10/2022	1		
Bi 10	54	L	Bugis	Dusun Daru'mung Desa Bulogading, Kec. Bontonompo Kab. Gowa (Bantimurung) dibelakang Puskesmas	Biasa	07/10/2022	21/10/2022		0	
			Makassar	Baddo ujung, tompobulu (Belakang Masjid babul khairat Masaleh	Biasa	07/10/2022	21/10/2022	2		

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Probiotik	Tanggal Selesai Probiotik	NIHSS Pre	NIHSS Post	Ket
Bi 11	54	P	Makassar	Baddo ujung, tompobulu (Belakang Masjid babul khairat Masaleh	Biasa	07/10/2022	21/10/2022		1	
Ai 12	43	L	Bugis	Borong Raya, Lorong 4 (Warung Rezky nasi kuning, Kec. Manggala)	Biasa	12/10/2022	25/10/2022	5		DO: Pasien tidak minum probiotik
Ai 13	52	L	jawa	Jl. Muslim Dg Tutu , Kecamatan Tamalate	Biasa	14/10/2022	27/10/2022	7		
BI 13	52	L	jawa		Biasa	14/10/2022	27/10/2022		2	
Ai 14	37	P	makassar	Jl. Sukadamai No 4 Kecamatan Panakukang	Biasa	15/10/2022	28/10/2022	6		DO: Pasien tidak minum probiotik
Ai 15	49	L	bugis	Antang, Tamangapa	Biasa	15/10/2022	28/10/2022	6		
BI 15	49	L	bugis	jl Tamangapa raya	Biasa	15/10/2022	28/10/2022		4	
Ai 16	40	P	Makassar	Ds. Aeng Sagebonggai, Kec. Galesong Utara , Kab. Takalar (daerah perbatasannya)	Biasa	15/10/2022	28/10/2022	8		
BI 16	40	P	Makassar	Ds. Aeng Sagebonggai, Kec. Galesong Utara , Kab. Takalar (daerah perbatasannya)	Biasa	15/10/2022	28/10/2022		4	
			Bugis	Antang Ranggong Blok D No 6	Biasa	16/10/2022	29/10/2022	11		
			Bugis	Antang Ranggong Blok D No 6	Biasa	16/10/2022	29/10/2022		3	

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Probiotik	Tanggal Selesai Probiotik	NIHSS Pre	NIHSS Post	Ket
Ai 18	56	L	Bugis	BTN Sakinah Baru Blok E14/13 Makassar	Biasa	16/10/2022	29/10/2022	9		
BI 18	56	L	bugis	jl pandan raya, pandan lr 6	Biasa	16/10/2022	29/10/2022		2	
AI 19	52	L	Bugis	Tamanyeleng, Kecamatan Borombong Kabupaten Gowa (di belakang pom bensin)	Biasa	17/10/2022	30/10/2022	8		
BI 19	52	L	bugis	Tamanyeleng, Kecamatan Borombong Kabupaten Gowa (di belakang pom bensin)	Biasa	17/10/2022	30/10/2022		5	
Ai 20	59	P	Makassar	Pao-pao	Biasa	17/10/2022	30/10/2022	5		DO: Pasien tidak minum probiotik
Ai 21	52	L	makassar	jl. bulu 2 no 26	Biasa	20/10/2022	02/11/2022	7		
Bi 21	52	L	makassar	jl. bulu 2 no 26	Biasa	20/10/2022	02/11/2022		3	
Ai 22	43	P	bugis	Bunga ejaya Lr.4 No 07	Biasa	22/10/2022	04/11/2022	4		
BI 22	43	P	bugis	bunga ejaya lr no 07	Biasa	22/10/2022	04/11/2022		0	
AI 23	59	L	Bugis	jl. Al Markaz I/29, Makassar	Biasa	8/11/2022	22/11/2022	4		DO: Pasien tidak minum probiotik
AI 24	52	L	bugis	jl dr. Wahidin Sudirohusodo lr 3	Biasa	8/11/2022	22/11/2022	3		
			bugis	jl dr. Wahidin Sudirohusodo lr 3	Biasa	8/11/2022	22/11/2022		1	

b. Kontrol

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Kelompok Kontrol	Tanggal Selesai Kelompok Kontrol	NIHSS Pre	NIHSS Post	Ket
Ac 1	66	P	Bugis	Jl. A. Pettarani blok GA 8 No 2		13/10/2022	27/10/2022	4		
BC 1	46	P	Bugis	jl AP Pettarani ga 8 no 2	biasa	13/10/2022	28/10/2022		2	
AC 2	67	L	Bugis	Jl. Bumi Tamarunang Indah No 6 Blok B , Sombe Opu Gowa	Biasa	16/10/2022	30/10/2022	9		
BC 2	67	L	Bugis	Desa Mandalle, tamattia kec bajeng barat	Biasa	16/10/2022	30/10/2022		8	
AC 3	60	P	Makassar	Jl. Malino		17/10/2022	31/10/2022	3		
BC 3	60	P	Makassar	Jl. Malino	biasa	17/10/2022	31/10/2022		3	
AC 4	46	P	Bugis	Pailangga (samping mesjid Baitul Umar)		18/10/2022	01/11/2022	13		DO: Pasien tidak datang berobat
AC 5	55	P	Bugis	Jl. A. P. Pettarani V Np 19		19/10/2022	2-11-2022	3		
BC 5	55	P	Bugis	Jl. A. P. Pettarani V Np 19	biasa	19/10/2022	2/11/2022		2	
Ac 6	52	P	Bugis	Jl. Dg Tata Tanngul Makasar		21/10/2022	04/11/2022	3		
BC 6	52	P	Bugis	Jl. Dg Tata Tanngul Makasar	biasa	21/10/2022	04/11/2022		2	
Ac 7	50	L	Bugis	Jl. Abd Dg Serua Lr.3 No 9		22/10/2022	05/11/2022	8		
BC 7	50	L	Bugis	Jl. Abd Dg Serua Lr.3 No 9	biasa	22/10/2022	05/11/2022		5	
Ac 8	63	L	Makasar	Jl. Gunung Bawakaraeng Lr 75 B, belakang SPBU	biasa	25/10/2022	08/11/2022	5		DO: Pasien mengundurkan diri
		-	Bugis	Jl. Muh.Yamin Baru Inspeksi Kanal, Kel. Bara-Baraya	biasa	25/10/2022	08/11/2022	5		DO: Pasien tidak dapat dihubungi
		?	Jawa	Citra sudiang indah Blok X7 No 11 Makassar	biasa	25/10/2022	8/11/2022	1		

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Kelompok Kontrol	Tanggal Selesai Kelompok Kontrol	NIHSS Pre	NIHSS Post	Ket
Ac 10	37	P	Jawa	Citra sudiang indah Blok X7 No 11 Makassar	Biasa	25/10/2022	08/11/2022		0	
Ac 11	44	L	bugis	Bumi Bentenge Permai Blok A No 3 Maros	Biasa	25/10/2022	08/11/2022	1		
BC 11	44	L	bugis	Bumi Bentenge Permai Blok A No 3 Maros	Biasa	25/10/2022	8/11/2022		0	
Ac 12	48	L	Makassar	Jl. Tidung 7 STP 2 No 59 Perumnas Kel. Mappala Kec. Rappocini	Biasa	28/10/2022	10/11/2022	3		
BC 12	48	L	Makassar	Jl. Tidung 7 STP 2 No 59 Perumnas Kel. Mappala Kec. Rappocini	Biasa	28/10/2022	10/11/2022		2	
Ac 13	62	P	makassar	karampuang	biasa	2/11/2022	15/11/2022	3		DO: Pasien pindah keluar daerah
AC 14	66	P	Makassar	jl onta baru no 50	biasa			11		DO: Pasien mengundurkan diri
Ac 15	42	P	Makassar	Asrama Kodam Baraqui 164 Bajigau	Biasa	04/11/2022	18/11/2022	1		
BC 15	42	P	Makassar	Asrama Kodam Baraqui 164 Bajigau	Biasa	04/11/2022	18/11/2022		2	
Ac 16	45	P	Makassar	Jl. Landak baru Lr 5c no 30	Biasa	04/11/2022	18/11/2022	10		
BC 16	45	P	Makassar	Jl. Landak baru Lr 5c no 30	Biasa	04/11/2022	18/11/2022		10	
-	-	-	Bugis	Desa Mandalle, tamattia kec bajeng barat	Biasa	8/11/2022	22/11/2022	5		
-	-	-	Bugis	Desa Mandalle, tamattia kec bajeng barat	Biasa	8/11/2022	22/11/2022		3	

Kode Sampel	Usia	JK	Suku	Alamat	Food Recall	Tanggal Mulai Kelompok Kontrol	Tanggal Selesai Kelompok Kontrol	NIHSS Pre	NIHSS Post	Ket
Ac19	42	L	Bugis	Sopeng	Biasa	09/11/2022		8		DO: Pasien tidak dapat dihubungi
AC 20	57	L	Makassar	jl pelita 2 no 09	Biasa	26/11/2022	10/12/2022	1		
BC 20	57	L	Makassar	jl pelita 2 no 09	Biasa	26/11/2022	10/12/2022		1	
AC 21	63	L	Bugis	Jl. Batara Bira, Perumahan Baramuli dan Harun Regency	Biasa	03/12/2022	17/12/2022	5		DO: Pasien tidak datang kontrol dan tidak dapat dihubungi
AC 22	52	P	Makassar	Graha Mawang Asri, jl. Macanda Gowa	Biasa	1/12/2022	14/12/2022	8		
BC 22	52	P	Makassar	Graha Mawang Asri, jl. Macanda Gowa	Biasa	1/12/2022	14/12/2022		7	
AC 23	54	P	Makassar	jl. dr Wahidin Sudirohusodo, lorong Manunggal	Biasa	04/12/2022	18/12/2022	6		
BC 23	54	P	Makassar	jl. dr Wahidin Sudirohusodo, lorong Manunggal	Biasa	04/12/2022	18/12/2022		5	
AC 24	50	L	Makassar	jl Barukang Utara Lorong 2	Biasa	04/12/2022	18/12/2022	5		
BC 24	50	L	Makassar	jl Barukang Utara Lorong 2	Biasa	04/12/2022	18/12/2022		3	
AC 25	58	P	Bugis	Tecaba, Pekabara Pinrang	Biasa	6/12/2022	20/12/2022	10		
BC 25	58	P	Bugis	Tecaba, Pekabara Pinrang	Biasa	6/12/2022	20/12/2022		10	

5. Hasil TD dan CT Scan

a. Kelompok Intervensi

Nama	Usia	Sistole pre	Sistole post	diastole pre	diastole post	Hasil CT Scan
Ny. H	58	137	125	85	82	Lesi Kortikal
Ny. M	41	130	128	84	80	Lesi Kortikal
Tn. H. A	51	135	130	87	85	Lesi Kortikal
Tn. H	60	145	138	90	92	Lesi Kortikal
Ny. J	64	144	140	92	88	Lesi Kortikal
Tn. H. D	48	145	138	85	83	Lesi Subkortikal
Tn. A	47	130	128	89	86	Lesi Kortikal
Tn. T	54	126	120	79	80	Lesi Kortikal
Ny. Dg. B	54	134	133	84	86	Lesi Kortikal
Tn. I	52	150	137	90	88	Lesi Subkortikal
Tn. B	49	149	137	92	89	Lesi Kortikal
Ny. H	40	139	133	87	81	Lesi Subkortikal
Tn. H. A	56	148	137	94	91	Lesi Multipel
Tn. S	56	148	140	98	97	Lesi Multipel
Tn. S	52	144	137	88	86	Lesi Subkortikal
Tn. R	52	141	137	79	76	Lesi Kortikal
Ny. S	43	145	144	95	91	Lesi Kortikal
Tn. M	52	138	133	77	79	Lesi Kortikal

b. Kelompok Kontrol

Nama	Usia	sistole pre	sistole post	diastole pre	diastole post	Hasil CT Scan
Ny. S	66	148	142	92	91	Lesi Kortikal
Tn. H	67	145	141	92	89	Lesi Multipel
Ny. S	60	137	134	77	78	Lesi Kortikal
Ny. R	55	132	128	83	81	Lesi Kortikal
Ny. J	52	136	132	88	83	Lesi Kortikal
Tn. S	50	134	131	77	73	Lesi Subkortikal
Ny. D	37	127	124	79	76	Lesi Kortikal
Tn. M	44	125	122	70	74	Lesi Kortikal
Tn. M	48	126	124	88	84	Lesi Kortikal
Ny. H	42	134	132	87	84	Lesi Kortikal
	45	148	143	92	90	Lesi Multipel
	58	139	136	87	84	Lesi Kortikal
	57	143	139	84	82	Lesi Kortikal
	52	145	139	90	88	Lesi Subkortikal
	54	137	132	85	81	Lesi Kortikal

Nama	Usia	sistole pre	sistole post	diastole pre	diastole post	Hasil CT Scan
Tn. H	50	138	135	89	85	Lesi Kortikal
Ny. D	58	147	148	91	88	Lesi Multipel

6. Analisis Statistik

a. Usia

Jenis Kelamin Intervensi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	12	66,7	66,7	66,7
	Perempuan	6	33,3	33,3	100,0
	Total	18	100,0	100,0	

Jenis Kelamin Kontrol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	8	44,4	47,1	47,1
	Perempuan	9	50,0	52,9	100,0
	Total	17	94,4	100,0	
Missing	System	1	5,6		
Total		18	100,0		

b. Usia

Usia Intervensi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	35-44	3	16,7	16,7	16,7
	45-54	10	55,6	55,6	72,2
	55-64	5	27,8	27,8	100,0
	Total	18	100,0	100,0	

Usia Kontrol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	35-44	3	16,7	17,6	17,6
	45-54	7	38,9	41,2	58,8
	55-64	5	27,8	29,4	88,2
	65-74	2	11,1	11,8	100,0
	Total	17	94,4	100,0	
Missing	System	1	5,6		
Total		18	100,0		

c. CT Scan

CT Scan Intervensi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lesi Kortikal	12	66,7	66,7	66,7
	Lesi Subkortikal	4	22,2	22,2	88,9
	Lesi Multipel	2	11,1	11,1	100,0
	Total	18	100,0	100,0	

CT Scan Kontrol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lesi Kortikal	12	66,7	70,6	70,6
	Lesi Subkortikal	2	11,1	11,8	82,4
	Lesi Multipel	3	16,7	17,6	100,0
	Total	17	94,4	100,0	

d. Tekanan Darah

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
TD_Pre_In_Sis	18	24	126	150	140,44	1,700	7,213
	18	21	77	98	87,50	1,349	5,721
	18	24	120	144	134,17	1,419	6,022
	18	21	76	97	85,56	1,269	5,382

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
TD_Pre_K_S	17	23	125	148	137,71	1,831	7,548
TD_Pre_K_D	17	22	70	92	85,35	1,536	6,334
TD_Post_K_S	17	26	122	148	134,24	1,763	7,267
TD_Post_K_D	17	18	73	91	83,00	1,315	5,420

Ranks

		N	Mean Rank	Sum of Ranks
sistol post intervensi - sistol pre intervensi	Negative Ranks	18[a]	9.50	171.00
	Positive Ranks	0[b]	.00	.00
	Ties	0[c]		
	Total	18		
diastol post intervensi - diastol pre intervensi	Negative Ranks	14[d]	10.82	151.50
	Positive Ranks	4[e]	4.88	19.50
	Ties	0[f]		
	Total	18		
sistol post control - sistol pre control	Negative Ranks	16[g]	9.50	152.00
	Positive Ranks	1[h]	1.00	1.00
	Ties	0[i]		
	Total	17		
diastol post control - diastol pre control	Negative Ranks	15[j]	9.17	137.50
	Positive Ranks	2[k]	7.75	15.50
	Ties	0[l]		
	Total	17		

a. sistol post intervensi < sistol pre intervensi

b. sistol post intervensi > sistol pre intervensi

c. sistol post intervensi = sistol pre intervensi

d. diastol post intervensi < diastol pre intervensi

e. diastol post intervensi > diastol pre intervensi

f. diastol post intervensi = diastol pre intervensi

g. sistol post control < sistol pre control

h. sistol post control > sistol pre control

st control = sistol pre control

ost control < diastol pre control

ost control > diastol pre control

ost control = diastol pre control

Test Statistics[a]				
	sistol post intervensi - sistol pre intervensi	diastol post intervensi - diastol pre intervensi	sistol post control - sistol pre control	diastol post control - diastol pre control
Z	-3.728[b]	-2.902[b]	-3.598[b]	-2.908[b]
Asymp. Sig. (2-tailed)	.000	.004	.000	.004
a. Wilcoxon Signed Ranks Test				
b. Based on positive ranks.				

e. NIHSS

NIHSS Pre Intervensi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ringan	6	33,3	33,3	33,3
	Sedang	12	66,7	66,7	100,0
	Total	18	100,0	100,0	

NIHSS Post Intervensi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ringan	17	94,4	94,4	94,4
	Sedang	1	5,6	5,6	100,0
	Total	18	100,0	100,0	

NIHSS Pre Kontrol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ringan	9	50,0	52,9	52,9
	Sedang	8	44,4	47,1	100,0
	Total	17	94,4	100,0	
Missing	System	1	5,6		
		18	100,0		

NIHSS Post Kontrol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ringan	11	61,1	64,7	64,7
	Sedang	6	33,3	35,3	100,0
	Total	17	94,4	100,0	
Missing	System	1	5,6		
Total		18	100,0		

f. Test normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Usia	,269	35	,000	,862	35	,000
NIHSS_Post	,208	35	,001	,868	35	,001
Jenis Kelamin	,375	35	,000	,630	35	,000

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
mRNA_Pre_K	,173	17	,185	,878	17	,030
BDHF_Pre_K	,175	17	,176	,925	17	,182
SCFA_Pre_K	,208	17	,049	,824	17	,004
NHISS_Pre_K	,189	17	,107	,901	17	,072
mRNA_Post_K	,158	17	,200*	,913	17	,113
BDNF_Post_K	,137	17	,200*	,953	17	,511
SCFA_Post_K	,211	17	,043	,861	17	,016
NHISS_Post_K	,226	17	,021	,908	17	,094

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
NA_Pre_In	,231	18	,012	,869	18	,017
NF_Pre_In	,228	18	,014	,876	18	,022

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SCFA_Pre_In	,287	18	,000	,759	18	,000
NHISS_Pre_In	,110	18	,200*	,959	18	,587
mRNA_Post_In	,157	18	,200*	,916	18	,112
BDNF_Post_In	,126	18	,200*	,962	18	,636
SCFA_Post_In	,227	18	,015	,865	18	,015
NHISS_Post_In	,189	18	,089	,887	18	,034

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

g. Data Deskriptif

Descriptives

			Statistic	Std. Error
mRNA_Pre_In	Mean		1,00666	,099697
	95% Confidence Interval for Mean	Lower Bound	,79632	
		Upper Bound	1,21700	
	5% Trimmed Mean		,98313	
	Median		,88822	
	Variance		,179	
	Std. Deviation		,422979	
	Minimum		,446	
	Maximum		1,990	
	Range		1,544	
	Interquartile Range		,395	
	Skewness		1,220	,536
	Kurtosis		,793	1,038
BDNF_Pre_In	Mean		518,33753	63,569925
	95% Confidence Interval for Mean	Lower Bound	384,21671	
		Upper Bound	652,45835	
	5% Trimmed Mean		513,46506	
	Median		472,91557	
	Variance		72740,437	
	Std. Deviation		269,704351	
	Minimum		65,811	
	Maximum		1058,568	

Descriptives

			Statistic	Std. Error
	Range		992,757	
	Interquartile Range		222,243	
	Skewness		,918	,536
	Kurtosis		,605	1,038
SCFA_Pre_In	Mean		15,58646	2,107746
	95% Confidence Interval for Mean	Lower Bound	11,13950	
		Upper Bound	20,03341	
	5% Trimmed Mean		14,99898	
	Median		13,04040	
	Variance		79,967	
	Std. Deviation		8,942407	
	Minimum		6,291	
	Maximum		35,457	
	Range		29,166	
	Interquartile Range		5,461	
	Skewness		1,547	,536
	Kurtosis		1,333	1,038
NHISS_Pre_In	Mean		5,44	,663
	95% Confidence Interval for Mean	Lower Bound	4,05	
		Upper Bound	6,84	
	5% Trimmed Mean		5,38	
	Median		5,50	
	Variance		7,908	
	Std. Deviation		2,812	
	Minimum		1	
	Maximum		11	
	Range		10	
	Interquartile Range		4	
	Skewness		-,068	,536
	Kurtosis		-,355	1,038
mRNA_Post_In	Mean		1,73828	,146480
	95% Confidence Interval for Mean	Lower Bound	1,42923	
		Upper Bound	2,04732	
	5% Trimmed Mean		1,70529	
	Median		1,66171	

Descriptives

			Statistic	Std. Error
	Variance		,386	
	Std. Deviation		,621462	
	Minimum		1,026	
	Maximum		3,045	
	Range		2,019	
	Interquartile Range		1,026	
	Skewness		,586	,536
	Kurtosis		-,631	1,038
BDNF_Post_In	Mean		910,34107	66,738423
	95% Confidence Interval for Mean	Lower Bound	769,53530	
		Upper Bound	1051,14683	
	5% Trimmed Mean		912,14727	
	Median		899,03091	
	Variance		80172,307	
	Std. Deviation		283,147148	
	Minimum		404,775	
	Maximum		1383,396	
	Range		978,621	
	Interquartile Range		513,862	
	Skewness		,051	,536
	Kurtosis		-1,033	1,038
SCFA_Post_In	Mean		25,77941	2,445864
	95% Confidence Interval for Mean	Lower Bound	20,61909	
		Upper Bound	30,93973	
	5% Trimmed Mean		25,39898	
	Median		25,79689	
	Variance		107,681	
	Std. Deviation		10,376922	
	Minimum		12,962	
	Maximum		45,444	
	Range		32,482	
	Interquartile Range		18,817	
	Skewness		,166	,536
	Kurtosis		-1,434	1,038
st_In	Mean		1,67	,370

Descriptives

			Statistic	Std. Error
	95% Confidence Interval for Mean	Lower Bound	,89	
		Upper Bound	2,45	
	5% Trimmed Mean		1,57	
	Median		1,50	
	Variance		2,471	
	Std. Deviation		1,572	
	Minimum		0	
	Maximum		5	
	Range		5	
	Interquartile Range		3	
	Skewness		,523	,536
	Kurtosis		-,692	1,038

Descriptives

			Statistic	Std. Error
mRNA_Pre_K	Mean		1,21714	,155211
	95% Confidence Interval for Mean	Lower Bound	,88810	
		Upper Bound	1,54617	
	5% Trimmed Mean		1,19039	
	Median		1,11707	
	Variance		,410	
	Std. Deviation		,639951	
	Minimum		,505	
	Maximum		2,411	
	Range		1,907	
	Interquartile Range		1,007	
	Skewness		,830	,550
	Kurtosis		-,551	1,063
BDNF_Pre_K	Mean		618,87250	84,169092
	95% Confidence Interval for Mean	Lower Bound	440,44200	
		Upper Bound	797,30301	
	5% Trimmed Mean		610,87773	
	Median		686,03352	
	Variance		120435,412	
	Std. Deviation		347,038056	
	Minimum		155,667	

Descriptives

			Statistic	Std. Error
	Maximum		1225,984	
	Range		1070,316	
	Interquartile Range		541,233	
	Skewness		,364	,550
	Kurtosis		-1,044	1,063
SCFA_Pre_K	Mean		17,98242	2,842221
	95% Confidence Interval for Mean	Lower Bound	11,95718	
		Upper Bound	24,00766	
	5% Trimmed Mean		17,19146	
	Median		12,89105	
	Variance		137,330	
	Std. Deviation		11,718778	
	Minimum		6,565	
	Maximum		43,637	
	Range		37,072	
	Interquartile Range		18,415	
	Skewness		1,101	,550
	Kurtosis		-,114	1,063
NIHSS_Pre_K	Mean		4,82	,763
	95% Confidence Interval for Mean	Lower Bound	3,21	
		Upper Bound	6,44	
	5% Trimmed Mean		4,75	
	Median		4,00	
	Variance		9,904	
	Std. Deviation		3,147	
	Minimum		1	
	Maximum		10	
	Range		9	
	Interquartile Range		6	
	Skewness		,457	,550
	Kurtosis		-1,155	1,063
mRNA_Post_K	Mean		1,39036	,165255
	95% Confidence Interval for Mean	Lower Bound	1,04004	
		Upper Bound	1,74069	
	5% Trimmed Mean		1,36784	

Descriptives

			Statistic	Std. Error
	Median		1,25097	
	Variance		,464	
	Std. Deviation		,681365	
	Minimum		,560	
	Maximum		2,626	
	Range		2,067	
	Interquartile Range		1,198	
	Skewness		,540	,550
	Kurtosis		-,958	1,063
BDNF_Post_K	Mean		729,79428	89,122553
	95% Confidence Interval for Mean	Lower Bound	540,86290	
		Upper Bound	918,72565	
	5% Trimmed Mean		723,11303	
	Median		735,58655	
	Variance		135028,102	
	Std. Deviation		367,461702	
	Minimum		174,985	
	Maximum		1404,866	
	Range		1229,881	
	Interquartile Range		594,560	
	Skewness		,419	,550
	Kurtosis		-,704	1,063
SCFA_Post_K	Mean		22,21230	3,439279
	95% Confidence Interval for Mean	Lower Bound	14,92135	
		Upper Bound	29,50324	
	5% Trimmed Mean		21,49158	
	Median		17,15422	
	Variance		201,087	
	Std. Deviation		14,180510	
	Minimum		7,726	
	Maximum		49,672	
	Range		41,946	
	Interquartile Range		25,083	
	Skewness		,824	,550
	Kurtosis		-,739	1,063

Descriptives

			Statistic	Std. Error
NIHSS_Post_K	Mean		3,59	,713
	95% Confidence Interval for Mean	Lower Bound	2,08	
		Upper Bound	5,10	
	5% Trimmed Mean		3,43	
	Median		3,00	
	Variance		8,632	
	Std. Deviation		2,938	
	Minimum		0	
	Maximum		10	
	Range		10	
	Interquartile Range		5	
	Skewness		,812	,550
	Kurtosis		-,241	1,063

h. Korelasi Kelomppok Intervensi

Correlations

			Usia	NIHSS_Pre
Spearman's rho	Usia	Correlation Coefficient	1,000	,268
		Sig. (2-tailed)	.	,063
		N	35	35
	NIHSS_Post	Correlation Coefficient	,268	1,000
		Sig. (2-tailed)	,063	.
		N	35	35

Correlations

			Jenis Kelamin	NIHSS_Post
Spearman's rho	Jenis Kelamin	Correlation Coefficient	1,000	,237
		Sig. (2-tailed)	.	,171
		N	35	35
	NIHSS_Post	Correlation Coefficient	,237	1,000
		Sig. (2-tailed)	,171	.
		N	35	35

RNA dengan NIHSS

Correlations

			mRNA_Post_In	NHISS_Post_In
Spearman's rho	mRNA_Post_In	Correlation Coefficient	1,000	-,926**
		Sig. (2-tailed)	.	,000
		N	18	18
	NHISS_Post_In	Correlation Coefficient	-,926**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

- BDNF dengan NIHSS

Correlations

			BDNF_Post_In	NHISS_Post_In
Spearman's rho	BDNF_Post_In	Correlation Coefficient	1,000	-,914**
		Sig. (2-tailed)	.	,000
		N	18	18
	NHISS_Post_In	Correlation Coefficient	-,914**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

- SCFA dengan NIHSS

Correlations

			SCFA_Post_In	NHISS_Post_In
Spearman's rho	SCFA_Post_In	Correlation Coefficient	1,000	-,873**
		Sig. (2-tailed)	.	,000
		N	18	18
	NHISS_Post_In	Correlation Coefficient	-,873**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

i. Uji Korelasi Kelompok Kontrol

RNA dengan NIHSS

Correlations

	mRNA_Post_K	NHISS_Post_K

mRNA_Post_K	Pearson Correlation	1	-,876**
	Sig. (2-tailed)		,000
	N	17	17
NHISS_Post_K	Pearson Correlation	-,876**	1
	Sig. (2-tailed)	,000	
	N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

- BDNF dengan NIHSS

Correlations

		BDNF_Post_K	NHISS_Post_K
BDNF_Post_K	Pearson Correlation	1	-,908**
	Sig. (2-tailed)		,000
	N	17	17
NHISS_Post_K	Pearson Correlation	-,908**	1
	Sig. (2-tailed)	,000	
	N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

- SCFA dengan NIHSS

Correlations

			SCFA_Post_K	NHISS_Post_K
Spearman's rho	SCFA_Post_K	Correlation Coefficient	1,000	-,928**
		Sig. (2-tailed)	.	,000
		N	17	17
	NHISS_Post_K	Correlation Coefficient	-,928**	1,000
		Sig. (2-tailed)	,000	.
		N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Post_In	mRNA_Post_In
Spearman's rho	SCFA_Post_In	Correlation Coefficient	1,000	,802**
		Sig. (2-tailed)	.	,000
		N	18	18
	mRNA_Post_In	Correlation Coefficient	,802**	1,000
		Sig. (2-tailed)	,000	.

		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Post_In	BDNF_Post_In
Spearman's rho	SCFA_Post_In	Correlation Coefficient	1,000	,846**
		Sig. (2-tailed)	.	,000
		N	18	18
	BDNF_Post_In	Correlation Coefficient	,846**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Post_K	BDNF_Post_K
Spearman's rho	SCFA_Post_K	Correlation Coefficient	1,000	,880**
		Sig. (2-tailed)	.	,000
		N	17	17
	BDNF_Post_K	Correlation Coefficient	,880**	1,000
		Sig. (2-tailed)	,000	.
		N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Post_K	mRNA_Post_K
Spearman's rho	SCFA_Post_K	Correlation Coefficient	1,000	,850**
		Sig. (2-tailed)	.	,000
		N	17	17
	mRNA_Post_K	Correlation Coefficient	,850**	1,000
		Sig. (2-tailed)	,000	.
		N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

j. Uji beda mean kelompok intervensi dan kelompok kontrol

Descriptives

			Statistic	Std. Error
BDNF_In	Mean		710,9479	62,25720
	95% Confidence Interval for Mean	Lower Bound	578,9685	
		Upper Bound	842,9273	
	5% Trimmed Mean		705,4186	
	Median		645,7012	
	Variance		65891,311	
	Std. Deviation		256,69303	
	Minimum		331,22	
	Maximum		1190,21	
	Range		858,99	
	Interquartile Range		367,45	
	Skewness		,422	,550
	Kurtosis		-,652	1,063
BDNF_K	Mean		674,3334	85,90048
	95% Confidence Interval for Mean	Lower Bound	492,2325	
		Upper Bound	856,4343	
	5% Trimmed Mean		666,7818	
	Median		732,6480	
	Variance		125441,178	
	Std. Deviation		354,17676	
	Minimum		169,17	
	Maximum		1315,42	
	Range		1146,26	
	Interquartile Range		533,72	
	Skewness		,413	,550
	Kurtosis		-,859	1,063

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
BDNF_In	710,9479	17	256,69303	62,25720
BDNF_K	674,3334	17	354,17676	85,90048

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	BDNF_In - BDNF_K	36,61452	346,04535	83,92832	-141,30558	214,53462	,436	16	,668

Descriptives

			Statistic	Std. Error
mRNA_BDNF_In	Mean		1,3613	,11738
	95% Confidence Interval for Mean	Lower Bound	1,1125	
		Upper Bound	1,6101	
	5% Trimmed Mean		1,3300	
	Median		1,1761	
	Variance		,234	
	Std. Deviation		,48396	
	Minimum		,77	
	Maximum		2,52	
	Range		1,75	
	Interquartile Range		,70	
	Skewness		,836	,550
	Kurtosis		,219	1,063
mRNA_BDNF_post	Mean		1,3037	,15870
	95% Confidence Interval for Mean	Lower Bound	,9673	
		Upper Bound	1,6402	
	5% Trimmed Mean		1,2776	
	Median		1,1462	
	Variance		,428	
	Std. Deviation		,65433	
	Minimum		,56	
	Maximum		2,52	
	Range		1,96	
	Interquartile Range		1,03	

	Skewness	,688	,550
	Kurtosis	-,713	1,063

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	mRNA_BDNF_ln	1,3613	17	,48396	,11738
	mRNA_BDNF_post	1,3037	17	,65433	,15870

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	mRNA_BDNF_ln - mRNA_BDNF_post	,05754	,68781	,16682	-,29609	,41118	,345	16	,735

Descriptives

			Statistic	Std. Error
NIHSS_ln	Mean		3,6471	,48463
	95% Confidence Interval for Mean	Lower Bound	2,6197	
		Upper Bound	4,6744	
	5% Trimmed Mean		3,6356	
	Median		3,5000	
	Variance		3,993	
	Std. Deviation		1,99816	
	Minimum		,50	
	Maximum		7,00	
	Range		6,50	
	Interquartile Range		3,00	
	Skewness		-,032	,550

	Kurtosis		-,833	1,063
NIHSS_Post	Mean		4,2059	,73020
	95% Confidence Interval for Mean	Lower Bound	2,6579	
		Upper Bound	5,7538	
	5% Trimmed Mean		4,0899	
	Median		3,0000	
	Variance		9,064	
	Std. Deviation		3,01070	
	Minimum		,50	
	Maximum		10,00	
	Range		9,50	
	Interquartile Range		5,00	
	Skewness		,597	,550
	Kurtosis		-,862	1,063

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	NIHSS_In	3,6471	17	1,99816	,48463
	NIHSS_Post	4,2059	17	3,01070	,73020

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	NIHSS_In - NIHSS_Post	-,55882	3,42273	,83013	-2,31863	1,20098	-,673	16	,510

Descriptives

	Statistic	Std. Error
Mean	20,4845	2,12815

	95% Confidence Interval for Mean	Lower Bound	15,9730	
		Upper Bound	24,9959	
	5% Trimmed Mean		20,2234	
	Median		19,1088	
	Variance		76,993	
	Std. Deviation		8,77458	
	Minimum		10,20	
	Maximum		35,47	
	Range		25,28	
	Interquartile Range		14,92	
	Skewness		,544	,550
	Kurtosis		-1,067	1,063
SCFA_Post	Mean		20,0974	3,03086
	95% Confidence Interval for Mean	Lower Bound	13,6722	
		Upper Bound	26,5225	
	5% Trimmed Mean		19,3245	
	Median		16,6672	
	Variance		156,164	
	Std. Deviation		12,49658	
	Minimum		7,45	
	Maximum		46,65	
	Range		39,20	
	Interquartile Range		23,15	
	Skewness		,850	,550
	Kurtosis		-,580	1,063

Ranks

		N	Mean Rank	Sum of Ranks
SCFA_Post - SCFA_In	Negative Ranks	12[a]	7,92	95,00
	Positive Ranks	5[b]	11,60	58,00
	Ties	0[c]		
	Total	17		

ost < SCFA_In

ost > SCFA_In

ost = SCFA_In

Test Statistics[a]

	SCFA_Post - SCFA_In
Z	-,876[b]
Asymp. Sig. (2-tailed)	,381

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Correlations

			SCFA_Pre_In	mRNA_Pre_In
Spearman's rho	SCFA_Pre_In	Correlation Coefficient	1,000	,822**
		Sig. (2-tailed)	.	,000
		N	18	18
	mRNA_Pre_In	Correlation Coefficient	,822**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Pre_In	BDNF_Pre_In
Spearman's rho	SCFA_Pre_In	Correlation Coefficient	1,000	,796**
		Sig. (2-tailed)	.	,000
		N	18	18
	BDNF_Pre_In	Correlation Coefficient	,796**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Post_In	BDNF_Post_In
's rho	SCFA_Post_In	Correlation Coefficient	1,000	,846**
		Sig. (2-tailed)	.	,000
		N	18	18

	BDNF_Post_In	Correlation Coefficient	,846**	1,000
		Sig. (2-tailed)	,000	.
		N	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		SCFA_Pre_K	mRNA_Pre_K
SCFA_Pre_K	Pearson Correlation	1	,932**
	Sig. (2-tailed)		,000
	N	17	17
mRNA_Pre_K	Pearson Correlation	,932**	1
	Sig. (2-tailed)	,000	
	N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			SCFA_Post_K	mRNA_Post_K
Spearman's rho	SCFA_Post_K	Correlation Coefficient	1,000	,850**
		Sig. (2-tailed)	.	,000
		N	17	17
	mRNA_Post_K	Correlation Coefficient	,850**	1,000
		Sig. (2-tailed)	,000	.
		N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).