DAFTAR PUSTAKA

Abd, H.J., Esri, D.A.L., Dyah, E., Baharuddin, K. dan Mardiana, M., 2022. Studi Literatur Tindakan Resusitasi Cairan pada Pasien Perdarahan Dengan Syok Hipovolemik. Jurnal Ilmiah Kesehatan Diagnosis. 17(4), 136-145.

Agi, Y. A. dan Titrawani., 2021. Gambaran Histologi Ginjal Tikus Wistar (Rattus norvegicus Berkenhout 1769) Akibat Pemberian Kopi Putih. Jurnal Biologi Universitas Andalas. 9(2), 60-67.

Anthara, I.M.S. dan Suartha, I.N., 2011. Homeostasis Cairan Tubuh pada Anjing dan Kucing. Buletin Veteriner Udayana. 3(1), 23-37.

Arief, M.H.A. dan Bambang, E.S., 2023. Tatalaksana Syok Hipovolemik Pada Perdarahan Akut. Jurnal Penelitian Perawat Profesional. 5(4), 1763-1770.

Arifin, W.N. dan Wan, M.Z., 2017. Sample Size Calculation in Animal Studies Using Resource Equation Approach. Malays J Med Sci. 24(5), 101-105.

Arjunan, A., Dhiraj, K.S., Minna, W. dan Juhyun, S., 2023. Identification of the molecular mechanism of insulin-like growth factor-1 (IGF-1): a promising therapeutic target for neurodegenerative diseases associated with metabolic syndrome. Cell and Bioscience.13(16),1-18.

Aspinal, V. dan Cappello, M., 2020. Introduction to Animal and Veterinary Anatomy and Physiology. CABI, USA.

Atata, J.A., Esievo, K.A.N., Adamu, S., Abdulsalam, H., Adam, M., Chiroma, M.A. dan Avazi, D,O., 2018. Haematological and biochemical parameters of clinically dehydrated and euhydrated dogs. Sokoto Journal of Veterinary Science. 16(4), 73-78.

Barry, M. dan Shibani, P., 2022. Targeting repair of the vascular endothelium and glycocalyx after traumatic injury with plasma and platelet resuscitation. Materials Biology. 17(14), 1-16.

Bellomo, R., John, A.K. dan Claudio, R., 2012. Acute Kidney Injury. The Lancet. 380(9843), 756-766.

Bettink, M.A.W., Arbous, M.S., Raat, N.J.H. dan Mik, E.G., 2019. Mind the mitochondria!. J Emerg Crit Care Med. 9(45), 1-13.

Bonanno., 2023. Management of Hemorrhagic Shock: Physiology Approach, Timing and Strategies. J. Clin. Med. 12(260), 1-31.

Brown, F.M.H., 2013. Diagnosis of Renal Disease in Rabbits. Vet Clin Exo Anim. 16(1), 145-174.

Buckley, H. dan Kishen, R., 2013. Crystalloids, colloids, blood, blood products and blood substitutes. Anaesthesia and Intensive Care Medicine. 14(6), 255-260.

Cahyani, E.D. Prasetya, R.A., Ma'rifah, I., Widia, D.N.T., Dewi, T.S. dan Putri, S, 2022. Kajian literatur efek nefroprotektif tanaman herbal terhadap nefrotoksisitas yang diinduksi gentamisin secara in vivo. Jurnal Ilmiah Farmasi (Scientific Journal of Pharmacy). 18(2), 178-191.

Cai, A., Suwen, Q., Zhuowa, S., Yu, Y., Huaqing, S., Tianyuan, W., Yong, D., 2017. Method Comparison and Bias Estimation of Blood Urea Nitrogen (BUN), *Creatinine* (Cr), and Uric Acid (UA) Measurements between Two Analytical Methods. Clinical Laboratory. 63(1), 73-77.

Charan, J. dan Kantharia, N.D., 2013. How to calculate sample size in animal studies?. Journal of Pharmacology and Pharmacotherapeutics. 4(4), 303-306.

Chen, J., Zhengmin, M., Ke, P., Fuhai, J. Nicole, K. S., 2024. Intraoperative Colloid Use on Post-operative Renal Function. Current Anesthesiology Reports. 14(1), 306-311.

Corrêa, T. D., Rocha, L. L., Pessoa, C. M. S., Silva, E., dan Assuncao, M. S. C. D., 2015. Fluid therapy for septic shock resuscitation: which fluid should be used?. Einstein (Sao Paulo). 13(11), 462-468.

Dewi, P.R.P., Hairrudin, dan Rena N., 2016. Pengaruh Stres Fisik terhadap Kadar Kreatinin Serum Tikus Wistar Jantan (Rattus norvegicus). e-Jurnal Pustaka Kesehatan. 4(2), 218-221.

DiBartola, S.P., 2012. Fluid, Electrolyte and Acid-Base Disorders in Small Animal Practice: Fourth Edition. USA, Elsevier.

Drees, A.A., Mahmoud, S.K. dan Mona, S, 2017. Histological and Immunohistochemical Basis of the Effect of Aminoguanidine on Renal Changes Associated with Hemorrhagic Shock in a Rat Model. Acta Histochem Cytochem. 50(1), 11–19.

Dupont, J., Serteyn, D. dan Sandersen, C., 2020. Life Threatening Hemorrhage During Patent Ductus Arteriosus Ligation in a Cat: Xenotransfusion With Canine Blood. Frontiers in Veterinary Science. 7(133), 1-6.

Dutton, R.P., 2012. Haemostatic resuscitation. British Journal of Anasthesia. 109(1), 39-46.

Ergin, B., Tom, V.R., Alex, L.,Yasin, I., Patricia, AC.S., Bert, M., Ugur, A., Berna, Y.A., Klazina, K., Nico, D.J. dan Can, I., 2023. Intra-renal microcirculatory alterations on non-traumatic hemorrhagic shock induced acute kidney injury in pigs. Journal of Clinical Monitoring and Computing. 37(5), 1193-1205.

Fage, N., Asfar, P., Radermacher, P. dan Demiselle, J., 2023. Norepinephrine and Vasopressin in Hemorrhagic Shock: A Focus on Renal Hemodynamics. International Journal of Molecular Sciences. 24(4), 1-13.

Fahriyansyah, F., Sri, I., Sitti, M.M. dan Agung, J.S., 2021. Gambaran Histologi Ren Tikus Putih (Rattus norvegicus L.) Hiperglikemia Setelah Pemberian Ekstrak Etanol Daun Mimba (Azadirachta Indica A. Juss). Buletin Anatomi dan Fisiologi. 6(2), 193-202.

Farhana, S. dan Wibowo, F.A., 2019. Anatomical and Histological Study of Male Uropoetic Organs of Common Rabbit (Oryctolagus cuniculus). Proc Intenat Conf Sci Engin. 2, 149-152.

Fülöp, A., Z. Turóczi, D. Garbaisz, L. Harsányi, A. Szijártó., 2013. Experimental Models of Hemorrhagic Shock: A Review. European Surgical Research. 50(1), 57-70.

Gibson-Corley, K.N., Olivier, A.K. dan Meyerholz, D.K., 2013. Principles for Valid Histophatologic Scoring in Research. Veterinary Pathology. 6, 1007-1015.

Gilbert, S.J. dan Daniel, E.W., 2014. National Kidney Function's Primer on Kidney Diseases: Sixth Edition. Elsevier, China.

Gutierrez, G., H David, R. dan Marian, E.W.G., 2014. Clinical review: Hemorrhagic shock. Critical Care. 8(5), 373-381.

Hady, A.J., Esri, D.A.L., Dyah, E., Baharuddin, K. dan Mardiana, M., 2022. Studi Literatur Tindakan Resusitasi Cairan Pada Pasien Perdarahan Dengan Syok Hipovolemik. Jurnal Ilmiah Kesehatan Diagnosis. 17(4), 136-145.

Handajani, F. 2021. Metode Pemilihan dan Pembuatan Hewan Model Beberapa Penyakit Pada Penelitian Eksperimental. Zifatama Jawara, Sidoarjo.

Hardisman., 2013. Memahami Patofisiologi dan Aspek Klinis Syok Hipovolemik: Update dan Penyegar. Jurnal Kesehatan Andalas. 2(3), 178-182.

Hartanto, R. V., 2012. Perbedaan perubahan konsentrasi natrium plasma antara preload 20cc/kgbb ringer laktat dibandingkan dengan preload 20cc/kgbb ringer asetat malat. Karya Tulis Ilmiah. Universitas Diponegoro, Semarang.

Harward, M.P., 2012. Medical Secrets: Fifth Edition. Elsevier, USA.

Hayuningtyas, D.D., 2018. Gambaran Kadar Kreatinin Serum dan Histopatologi Ginjal Pada Kejadian Gagal Ginjal Akut Akibat Induksi Gliserol Pada Hewan Coba Tikus (Rattus norvegicus). Skripsi, Universitas Brawijaya, Malang.

Hidayat, R., Hendri, B. dan Nuning, N., 2013. Histopatologi Ginjal Mencit (Mus musculus L.) Jantan Akibat Radiasi Cahaya Lampu Merkuri. Jurnal Ilmiah: Biologi Eksperimen dan Keanekaragaman Hayati. 1(2), 78-82.

Hirata, N., 2020. Fluid resuscitation with hydroxyethyl starch in perioperative acute hemorrhagic shock. Journal of Anesthesia. 34(1), 317-319.

Hrapkiewicz, K., Colby, L. dan Denison, P., 2013. Clinical Laboratory Animal Medicine: An Introduction. Wiley Blackwell, USA.

Huang, J., Bayliss, G. Dan Zhuang, S., 2021. Porcine Models of Acute Kidney Injury. American Journal of Physiology Renal Physiology. 320(6), 1-15.

Hussmann, B., Lendemans, S., Groot, H. d. dan Rohrig, R., 2018. Volume replacement with Ringer-lactate is detrimental in severe hemorrhagic shock but protective in moderate hemorrhagic shock: Studies in a rat model. Critical Care. 18(1), 1-10.

Kamaliani, B.R., Setiasih, N.L.E. dan Winaya, I.B.O., 2018. Gambaran Histopatologi Ginjal Tikus Wistar Diabetes Melitus Eksperimental yang Diberikan Ekstrak Etanol Daun Kelor. Buletin Veteriner Udayana. 1, 71-77.

Kemp, M.E.A., 2020. Crystalloids and colloids. Southern African Journal of Anasthesia and Analgesia. 26(3), 80-85.

Klein, C.L., Tom, S.H., Wen, F.F., Christopher, J.A., Ivor, S.D. dan Sarah, F., 2008. Interleukin-6 mediates lung injury following ischemic acute kidney injury or bilateral nephrectomy. Kidney International. 74(7), 901-909.

Krissanti, I., Rifaati, H. dan Resti, G.D., 2023. Efektivitas dan Pengaruh Kombinasi Anestesi Ketamine-Xylazine pada Tikus (Rattus norvegicus). Gunung Djati Conference Series. 18(1), 245-252.

Kusmiati, M. dan Lia, S.N., 2018. Gambaran Kadar Kreatinin Darah Pada Penderita Hipertensi Lebih Dari 2 Tahun. Prosiding Seminar Nasional dan Diseminasi

Penelitian Kesehatan. 21 April 2018, STIKES Bakti Tuna Husada, Tasikmalaya, pp. 160-162.

Kusuma, I.F., Nur, F.R.M. dan Novan, K.A., 2023. Perbedaan Kadar BUN dan Kreatinin Serum pada Derajat Keparahan Pasien Ketoasidosis Diabetikum di RSD Dr. Soebandi Jember. Journal of Agromedicine and Medical Sciences. 9(2), 110-115.

Larasati, R., 2016. Pengaruh Stres Pada Kesehatan Jaringan Periodontal. Jurnal Skala Husada. 13(1), 81-89.

Lichtenberger, M., 2008. Shock and Fluid Therapy in the Rabbit. British Small Animal Veterinary Congress, 2008, Thousand Oaks Pet Emergency Clinic, USA. pp. 1-4

Liu, D., Mehdi, N., Gokhan, B., Peng, Z., dan Joe, M.R., 2015. Collagen and Gelatin. Annu. Rev. Food Sci. Technol. 6(1), 527–57.

Lusiantari, R., Miranti, D.P., Titis, N., Pattimura, R.H. dan Anggita, D., 2018. Shortening tends to increase aortic foam cell count and wall thickness in male Wistar rats.Universa Medicina. 37(1), 13-18.

Mangino, M.J., Loren, L., Valerie, P. dan Ashley, L., 2018. Crystalloid and Colloid Resuscitation: Hypertonic Saline, Starches, Polymers and Gelatins. Medicia Intensiva. 39(5), 303-315.

Mann, M.K., Muhammad, A.K., Shehla, G.B., Muhammad, I., Hamid, A., Sajid, U. dan Muhammad, L.S., 2018. Clinico-Biochemical Effects of *Xylazine*-Ketamine and Isoflurane on Rabbits Undergoing Ovariohysterectomy. Pakistan J Zool. 50(2), 783-786.

Mapara, M., Thomas, B.S. dan Bhat, K.M., 2012. Rabbit as an animal model for experimental research. Dental Research Journal. 9(1), 111-118.

Marshall, W.J., Lapsley, M., Day, A.P. dan Ayling, R.M., 2014. Clinical Bochemistry Metabolic and Clinical Aspects: Third Edition. Elsevier, UK.

Martin, C., Cortegiani, A., Gregoretti, C., Martin-Loeches, I., Ichai, C., Leone, M., Marx, G. dan Einav, S., 2018. Choice of Fluids in Criticall Ill Patients. BMC Anesthesiology. 18(200), 1-14.

Mayer, J. dan Donnelly, T.M., 2013. Clinical Veterinary Advisor Birds and Exotic Pets. Elsevier, USA.

Mayeur, N., Vincent, M., Acil, J., Julien, A., Talal, AS., Ce´line, G.F., Olivier, F., Jean, P.G., Ste´phane, S., dam Ivan, T., 2011. Morphologic and Functional Renal Impact of Acute Kidney Injury After Prolonged Hemorrhagic Shock In Mice. Critical Care Medicine. 39(9), 2131-2138.

Mazzaferro, E., 2013. Small Animal Fluid Therapy, Acid-Base and Electrolyte Disorders: A Color Handbook. Manson Publishing, UK.

Melillo, A., 2007. Rabbit Clinical Pathology. Journal of Exotic Pet Medicine. 16(3), 135-145.

Misniwaty, A. dan Putra, R.Q.J., 2016. Penggunaan dan Penanganan Hewan Coba Rodensia dalam Penelitian Sesuai dengan Kesejahteraan Hewan. Pusat Penelitian dan Pengembangan Peternakan, Bogor.

Monica, W.S., Apada, M.S., Amir, M.N., Budiyana, N.S. dan Husada, A.P., 2023. Description Blood Profile In Hemorrhagic Shock Rabbits Treated With Ringer's Lactate and Gelatin Resuscitation. Journal Riset Veteriner Indonesia. 7(2), 27-36.

Moore, F.A., 2011. The Use of Lactated Ringer's in Shock Resuscitation: The Good, the Bad and the Ugly. The Journal of TRAUMA Injury, Infection, and Critical Care. 70(5), 15-16.

Moschopoulos, C.D., Dimitra, D., Anastasia, D., Konstantina, D., Konstantinos, P., Nikolaos, Z., Sotirios, T., Anastasia, K. dan Paraskevi, C.F., 2023. New Insights into the Fluid Management in Patients with Septic Shock. Medicina. 59(6), 1-20.

Mudjihartini, N., Dwi, H. dan Sri, W.A.J., 2023. Efek Hipoksia Sistemik Kronik Terhadap Aktivitas Spesifik Enzim Kreatin Kinase dan Kadar Kreatinin Otot Rangka Tikus. Muhammadiyah Journal of Geriatric. 4(1), 1-9.

Mulyani, G.T., Budhi, S. dan Kurnia., 2021. Identifikasi Tipe Dehidrasi dan Profil Elektrolit Mayor pada Pasien Kucing di Rumah Sakit Hewan Prof. Soeparwi dan Beberapa Klinik Hewan di Wilayah Yogyakarta. Jurnal Sain Veteriner. 39(3), 272-276.

Muttaqien, B.U., Indra, R., Winaruddin, I.C.D. dan Lubis, T.M., 2018. Gambaran Histopatologi Ginjal Babi Hutan (Sus scrofa) Yang Terinfeksi Parasit Internal di Kawasan Lhoknga, Aceh Besar. JIMVET. 4, 503-514.

Myburgh, J.A. dan Michael, G.M., 2013. Resuscitation Fluids. The New England Journal of Medicine. 369(13), 1243-1251.

Naisbitt, C., Mos, K.F.A. dan Roop, K., 2022. Crystalloids, colloids, blood products and blood substitutes. Anaesthesia and Intensive Care Medicine. 23(5), 304-311.

Nguyen, T.T.U., Anh, T.N., Hyeongwan, K., Yu, J.J., Woong, P., Kyoung, M.K., Ilwoo, P. dan Won, K., 2024. Deep-learning model for evaluating histopathology of acute renal tubular injury. Scientific reports. 4(9010), 1-11.

Ningsih, D.K., 2015. Penatalaksanaan Kegawatdaruratan Syok dengan Pendekatan Proses Keperawatan. UB Press, Indonesia.

Nisa, F.N., Kurnianto, E. dan Sutopo., 2022. Karakterisasi Morfometrik dan Pendugaan Jarak Genetik Kelinci New Zealand, Rex, dan Flemish Giant. Jurnal Ilmu Ternak Universitas Padjadjaran. 22(1), 22-29.

Noor, S.M., 2022. Penanganan Rodensia Dalam Penelitian Sesuai Kaidah Kesejahteraan Hewan. IAARD Press, Jakarta.

Noventi, W., Rizky, H. dan Mukhlis, I., 2019. Pengaruh Pemberian Minyak Jelantah terhadap Gambaran Histopatologi Ginjal Tikus Putih (Rattus norvegicus) Jantan Galur Sprague dawley. J Agromedicine. 6(1), 159-166.

Nurhikmah, N.N., Nurmeiliasari. Dan Amir, H.K.A., 2022. Respon Fisiologis dan Hematologi Kelinci Rex yang diberi Pakan Mengandung Indigofera zollingeriana. Jurnal Sains dan Teknologi Peternakan. 3(2), 60-67.

Nuroini, F. dan Wahyu, W., 2022. Gambaran Kadar Ureum dan Kreatinin pada Pasien Gagal Ginjal Kronis di Rsu Wiradadi Husada. Jambura Journal of Health Science and Research. 4(2), 538-545.

Nwogueze, B.C., Isioma, M.O., Tochukwu, N.N. dan Chukwuemeka, P.A., 2023. Oxidative stress-induced by different stressors alters kidney tissue antioxidant markers and levels of *creatinin*e and urea: the fate of renal membrane integrity. Scientific Reports. 13(1), 1-9.

Özkan, C., Kaya, A. dan Akgül, Y. 2012. Normal values of haematological and some biochemical parameters in serum and urine of New Zealand White rabbits. World Rabbit Science. 20(4), 253 - 259

Pasaribu, Y.R., Rompas, S.S.J. dan Kundre, R.M., 2021. Perbedaan Tekanan Darah pada Pasien CKD Sebelum dan Setelah Hemodialisis di Ruang Hemodialisars Swasta di Sulawesi Utara. Jurnal Keperawatan. 9(1), 56-62.

Patala, R., Kenta, Y.S. dan Irnawati., 2021. Efektivitas Ekstrak Etanol Kulit Buah Pepaya (Carica papaya L.) Terhadap Kadar Kreatinin dan Ureum Tikus Putih

Jantan (Rattus norvegicus) yang Diinduksi Streptozotocin. Jurnal Sains Kesehatan. 3(6), 833-838.

Peng, R., Liu,K., Li, W., Yuan, Y., Niu, R., Zhou, L., Xiao, Y., Gao, H., Yang, H., Zhang, C., Zhang, X., He, M. dan Wu, T., 2021. Blood urea nitrogen, blood urea nitrogen to *creatinin*e ratio and incident stroke: The Dongfeng-Tongji cohort. Atherosclerosis. 333, 1-8.

Peterson, M.E. dan Kutzler, M.A., 2011. Small Animal Pediatrics. Elsevier, China.

Pittman, R.N., 2013. Oxygen Transport in The Microcirculation And Its Regulation. Microcirculation. 20(2), 1-35.

Plumb, D.C., 2008. Plumb's Veterinary Drug Handbook: Sixth Edition. Pharma Vet Inc, Wisconsin.

Posangi, I., 2012. Penatalaksanaan Cairan Perioperatif pada Kasus Trauma. Jurnal Biomedik. 4(1), 5-12.

Prabhakar, H., Monica, S.T., Indu, K. dan Charu, M., 2022. Transfusion Practice in Clinical Neurosciences. Springer, India.

Pratiwi, H.C. dan Manan, A., 2015. Teknik Dasar Histologi Pada Ikan Gurami (Osphronemus gouramy). Jurnal Ilmiah Perikanan dan Kelautan. 2, 153-157.

Quesenberry, Katherine, Christoph, M., Connie, O. dan James, W.C., 2021. Ferrets, Rabbits and Rodents, Clinical Medicine and Surgery, 4th Edition. ELSEVIER, Missouri.

Quin, G.Z., Amin, A., Hongbo, L., Ziyuan, M., Andrew, C., Andrea, H., Jon, H., Matthew, B.P. dan Katalin, S., 2021. Renal Histologic Analysis Provides Complementary Information to Kidney Function Measurement for Patients with Early Diabetic or Hypertensive Disease. J Am Soc Nephrol. 32(11). 2863-2876.

Ramesh, G.H., Uma, J.C. dan Farhath, S., 2019. Fluid resuscitation in trauma: what are the best strategies and fluids?. International Journal of Emergency Medicine. 12(38), 1-6.

Ranjan, A.K., Zhong, Z., Seema, B. dan Anil, G., 2021. Centhaquine Restores Renal Blood Flow and Protects Tissue Damage After Hemorrhagic Shock and Renal Ischemia. Frontiers in Pharmacology. 12(3), 1-14.

Rohrig, R., Thomas, R., Sven, L., Thorsten, F., Herbert, D.G. dan Frank, P., 2012. Adverse Effects Of Resuscitation With Lactated Ringer Compared With

Ringer Solution After Severe Hemorrhagic Shock In Rats. Shock. 38(2), 137-145.

Rouza, E., Alfares, M.R., Riri, A., Bayu, R.A., dan Veldy, H., 2022. Sistem Pakar Diagnosa Penyakit pada Kelinci dengan Menggunakan Metode Fuzzy Temporal Association Rule. Riau Journal of Computer Science. 8(1), 56-66.

Rudloff, E. dan Hopper, K., 2021. Crystalloid and Colloid Compositions and Their Impact. Frontiers in Veterinary Science. 8, 1-11.

Santry, H.P. dan Alam, H.B., 2010. Fluid Resuscitation: Past, Present, and The Future. Shock. 33(3), 229-241.

Septianira, F., Berata, I.K. dan Susari, N.N.W., 2021. Perubahan Histopatologi Ginjal Mencit (Mus musculus) Akibat Pembatasan Pemberian Air Minum. Indonesia Medicus Veterinus. 11(3), 350-359.

Singh, S., Kerndt, C.C. dan Davis, D., 2020. Ringer's Lactate. StatPearls Publishing LLC, USA.

Suartha, I.N., 2010. Terapi Cairan pada Anjing dan Kucing. Buletin Veteriner Udayana. 2(2), 69-83.

Suckow, M.A., Stevens, K.A. dan Wilson, R.P., 2012. The Laboratory Rabbit, Guinea Pig, Hamster, and Other Rodents. Elsevier, India.

Sun, W., Zhihui, S., Haisong, X., Wusi, Q. dan Jiahua, S., 2017. Application of pulsed arterial resuscitation in a rabbit model of hemorrhagic shock. Ulus Travma Acil Cerrahi Derg. 23(6), 445-451

Supandji, M., Dhany, B. dan Erwin, P. Anesthesia and Critical Care., 2015. Strategi Resusitasi pada Traumatik Syok Hemoragi. 33(3), 218-225.

Suryawan, D.G.A., Arjani, I.A.M.S. dan Sudarmanto, I.G. 2016., Gambaran Kadar Ureum Dan Kreatinin Serum Pada Pasien Gagal Ginjal Kronis Yang Menjalani Terapi Hemodialisis Di Rsud Sanjiwani Gianyar. Meditory. 4(2), 145-153.

Tafwid, M.I., 2015. Tatalaksana Syok Hipovolemik Et Causa Suspek Intra Abdominal Hemorrhagic Post Sectio Caesaria. J. Agromed Unila. 2(3), 203-210.

Thorp, A., 2018. Fluid Calculations: Keeping a Balance. Veterinary Nurse. 13(4), 13-17.

Ukratalo, A.M., Maria, N., Nasrul, A.T. dan Nunun, A.P.S.B.K., 2023. Gambaran Histopatologi Ginjal Mencit (Mus Musculus) Terinfeksi Plasmodium Berghei Setelah Diberi Ekstrak Metanol Kulit Batang Alstonia scholaris. Biofaal Journal. 4(1), 49-57.

Vardar, K., Kubra, C. dan Ugur, A., 2022. Fluid Resuscitation Aggravates the Cellular Injury in a Hemorrhagic Shock Model. Dubai Medical Journal. 5(2), 141-150.

Verdiansah., 2016. Pemeriksaan Fungsi Ginjal. Cermin Dunia Kedokteran. 43(2), 148-154.

Vibhandik, A.M. dan Gaikwad, R.B., 2022. Fenvalerate Induced Changes In Histological Structure Of Kidney Of Freshwater Teleost Fish Barbus carnaticus. Uttar Pradesh Journal of Zoology. 43(22), 67-70.

Wahyuni, S., Morina, R. dan Windarti., 2020. Histopatologi Ginjal Ikan Jambal Siam (Pangasiodon hypophthalmus) yang Diberi Pakan Mengandung Tepung Kunyit. Jurnal Perikanan dan Kelautan. 25(3), 232-237.

Walker, P.F., Anthony, D.F., Philip, A.R., Thomas, A.D. dan Matthew, J.B., 2018. Tranexamic acid decreases rodent hemorrhagic shock-induced inflammation with mixed end-organ effects. Plos One. 13(11), 1-14.

Wang, L., Song, J., Buggs, J., Wei, J., Wang, S., Zhang, J., Zhang, G., Lu, Y., Yip, K.P. dan Liu, R., 2017. A new mouse model of hemorrhagic shock-induced acute kidney injury. Am J Physiol Renal Physiol. 312(1), 134-142.

Wang, Y., Junling, Y., Liang, X., Zhiyu, Q., Zhenghong, W. dan Lina, Y., 2012. Protective Effect of Crocetin on Hemorrhagic Shockyinduced Acute Renal Failure in Rats. Shock. 38(1), 63-67.

Wijaya, A.E., dan Nur, I.S., 2020. Implementasi Metode Saw (Simple Additive Weighting) sebagai Pendukung Keputusan untuk Rekomendasi Habitat Kelinci Berbasis IoT (Internet of Things). Jurnal Teknologi Informasi dan Komunikasi. 13(2), 119-129.

Wiriansya, E.P., Amalia, D.G., Tanra, S.A.H. dan Julia., 2022. Manajemen Terapi Cairan pada Sepsis. Fakumi Medical Journal. 2(6), 394-407.

Yudaniayanti, I.S., Erfan. dan M., Anwar., 2010. Profil Penggunaan Kombinasi Ketamin-Xylazine dan Ketamin-Midazolam Sebagai Anestesi Umum Terhadap Gambaran Fisiologis Tubuh pada Kelinci Jantan. Veterinaria Medika. 3(1), 23-30.

Zainuddin, Z., Fachreza, O.S., Dian, M., Siti, A., Cut, D.I., Erdiansyah, R. dan Lian, V.R., 2023. Gambaran Histologi dan Histomorfometri Ginjal Kalkun. Jurnal Ilmiah Mahasiswa Veteriner (JIMVET) . 7(1), 13-21.

Zettira, E.T. dan Bambang, E.B., 2019. Return of Spontaneous Circulation Intraoperatif pada Wanita dengan Syok Hemoragik karena Ruptur Uteri Komplit dan Atonia Uteri. Majority. 8(2), 46-50.

Zhang, Y.M., Bo, G., Juan, J.W., Xu, D.S. dan Xi, W.L., 2013. Effect of Hypotensive Resuscitation with a Novel Combination of Fluids in a Rabbit Model of Uncontrolled Hemorrhagic Shock. Plos One. 8(6), 1-10.

LAMPIRAN

Lampiran 1. Data Mentah Pemeriksaan Kimia Darah (BUN dan Creatinin)

Tabel 1. Data Hasil Pemeriksaan Kimia Darah Kelompok Kontrol Positif (KP)

Kelompok KP	Waktu	BUN (mmol/L)	CREA (umol/L)
	T1	11,18	108,8
K8	T2	14,59	94,8
	T3	17,34	108,8
	T1	7,82	76,9
K9	T2	9,88	111,8
	T3	10,65	165,5
	T1	8,04	104,3
K10	T2	10,82	173,8
	T3	12,45	208,9

Tabel 2. Data Hasil Pemeriksaan Kimia Darah Kelompok Kontrol Negatif (KN)

Kelompok KN	Waktu	BUN (mmol/L)	CREA (umol/L)
	T1	10,28	52,5
K7	T2	11,19	81,2
	T3	13,63	63,4
	T1	7,11	71
K2	T2	10,16	109,5
	T3	12,09	99,2
	T1	11,34	8,2
K5	T2	10,19	10,2
	T3	12,78	188,9

Tabel 3. Data Hasil Pemeriksaan Kimia Darah Kelompok Perlakuan 1 (KP1)

Kelompok P1	Waktu	BUN (mg/dL)	CREA (mg/dL)
	T1	8,92	87,3
K6	T2	9,73	137,2
	T3	11,73	138,9
	T1	6,45	56,2
K14	T2	8,25	92,1
	T3	8,81	99,2
	T1	7,33	44
K16	T2	9,11	42,8
	T3	8,67	20,2

Tabel 4. Data Hasil Pemeriksaan Kimia Darah Kelompok Perlakuan 2 (KP2)

Kelompok P2	Waktu	BUN (mmol/L)	CREA (umol/L)
K4	T1	6,32	68,6
	T2	7,36	101,8
	T3	7,13	90,3
K12	T1	10,14	120,2
	T2	12,52	136,9
	T3	14,38	120,5
K1	T1	8,5	63,7
	T2	9,54	71,7
	T3	9,22	52,8

Lampiran 2. Hasil Pengolahan Data

1.   BUN

A.   Uji Normalitas

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Standardized Residual for BUN	36	100.0%	0	0.0%	36	100.0%

Descriptives

			Statistic	Std. Error
Standardized Residual for BUN	Mean		.0000	.13801
	95% Confidence Interval for Mean	Lower Bound	-.2802	
		Upper Bound	.2802	
	5% Trimmed Mean		-.0262	
	Median		-.1354	
	Variance		.686	
	Std. Deviation		.82808	
	Minimum		-1.43	
	Maximum		1.90	
	Range		3.33	
	Interquartile Range		1.04	
	Skewness		.501	.393

		Kurtosis		-.180	.768

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for BUN	.108	36	.200*	.964	36	.284

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

a. Lilliefors Significance Correction

B.   Uji Homogenitas

Between-Subjects Factors

		Value Label	N
Perlakuan	1.00	KP	9
	2.00	KN	9
	3.00	KP1	9
	4.00	KP2	9
Waktu	1.00	T1	12
	2.00	T2	12
	3.00	T3	12

Descriptive Statistics

Dependent Variable: BUN

Perlakuan	Waktu	Mean	Std. Deviation	N
KP	T1	9.0133	1.87961	3
	T2	11.7633	2.49268	3
	T3	13.4800	3.46189	3
	Total	11.4189	3.03979	9
KN	T1	9.5767	2.20096	3
	T2	10.5133	.58620	3
	T3	12.8333	.77138	3
	Total	10.9744	1.88519	9
KP1	T1	7.5667	1.25189	3
	T2	9.0300	.74324	3
	T3	9.7367	1.72770	3

	Total	8.7778	1.48150	9
KP2	T1	8.3200	1.91635	3
	T2	9.8067	2.59032	3
	T3	10.2433	3.73176	3
	Total	9.4567	2.61525	9
Total	T1	8.6192	1.75918	12
	T2	10.2783	1.90125	12
	T3	11.5733	2.86161	12
	Total	10.1569	2.48716	36

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
BUN	Based on Mean	1.983	11	24	.078
	Based on Median	.528	11	24	.865
	Based on Median and with adjusted df	.528	11	14.053	.854
	Based on trimmed mean	1.832	11	24	.104

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: BUN

b. Design: Intercept + Perlakuan + Waktu + Perlakuan * Waktu

C.   Anova Two Way

Tests of Between-Subjects Effects

Dependent Variable: BUN

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	102.656[a]	11	9.332	1.967	.080
Intercept	3713.887	1	3713.887	782.878	.000
Perlakuan	41.880	3	13.960	2.943	.053
Waktu	52.628	2	26.314	5.547	.010
Perlakuan * Waktu	8.148	6	1.358	.286	.938
Error	113.853	24	4.744		
Total	3930.396	36			
Corrected Total	216.509	35			

a. R Squared = .474 (Adjusted R Squared = .233)

D. Duncan

BUN

Duncan[a,b]

Perlakuan	N	Subset 1	2
KP1	9	8,7778	
KP2	9	9,4567	9,4567
KN	9	10,9744	10,9744
KP	9		11,4189
Sig.		,053	,082

a. Perlakuan

KN

Duncan[a]

Waktu	N	Subset for alpha = 0.05 1	2
T1	3	9.5767	
T2	3	10.5133	10.5133
T3	3		12.8333
Sig.		.440	.087

KP

Duncan[a]

Waktu	N	Subset for alpha = 0.05 1
T1	3	9.0133
T2	3	11.7633
T4	3	13.4800
Sig.		.097

KP1

Duncan[a]

| Waktu | N | Subset for alpha = 0.05 |
		1
T1	3	7.5667
T2	3	9.0300
T4	3	9.7367
Sig.		.097

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.

KP2

Duncan[a]

| Waktu | N | Subset for alpha = 0.05 |
		1
T1	3	8.3200
T2	3	9.8067
T4	3	10.2433
Sig.		.453

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.

b.   Waktu

  T1

BUN

Duncan[a]

Perlakuan	N	Subset for alpha = 0.05
		1
KP1	3	7.5667
KP2	3	8.3200
KP	3	9.0133
KN	3	9.5767
Sig.		.245

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.

  T2

BUN

Duncan[a]

Perlakuan	N	Subset for alpha = 0.05
		1
KP1	3	9.0300
KP2	3	9.8067
KN	3	10.5133
KP	3	11.7633
Sig.		.129

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.

T3

BUN

Duncan[a]

Perlakuan	N	Subset for alpha = 0.05
		1
KP1	3	9.7367
KP2	3	10.2433
KN	3	12.8333
KP	3	13.4800
Sig.		.151

Means for groups in homogeneous

subsets are displayed.

a. Uses Harmonic Mean Sample Size =

3.000.

2. *Creatinin*

A. **Uji Normalitas**

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Standardized Residual for CREA	36	100.0%	0	0.0%	36	100.0%

Descriptives

			Statistic	Std. Error
Standardized Residual for CREA	Mean		.0000	.13801
	95% Confidence Interval for Mean	Lower Bound	-.2802	
		Upper Bound	.2802	
	5% Trimmed Mean		-.0019	
	Median		.0448	
	Variance		.686	

Std. Deviation	.82808	
Minimum	-1.54	
Maximum	1.68	
Range	3.22	
Interquartile Range	1.41	
Skewness	.002	.393
Kurtosis	-.828	.768

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Standardized Residual for CREA	.081	36	.200[*]	.977	36	.649

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

a. Lilliefors Significance Correction

Pengambilan Keputusan:

a) Jika signifikan > 0.05 maka data berdistribusi normal

b) Jika signifikan < 0,05 maka data berdistribusi tidak normal

Kesimpulan : Karena nilai sig. dari BUN dan CREA semuanya > 0,05 maka data berdistribusi normal.

B.   Uji Homogenitas

Between-Subjects Factors

		Value Label	N
Perlakuan	1.00	KP	9
	2.00	KN	9
	3.00	KP1	9
	4.00	KP2	9
Waktu	1.00	T1	12
	2.00	T2	12
	3.00	T3	12

Descriptive Statistics

Dependent Variable: CREA

Perlakuan	Waktu	Mean	Std. Deviation	N
KP	T1	96.6667	17.26567	3
	T2	126.8000	41.58125	3
	T3	161.0667	50.19705	3
	Total	128.1778	43.76539	9
KN	T1	43.9000	32.27119	3
	T2	66.9667	51.15724	3
	T3	117.1667	64.65032	3
	Total	76.0111	54.88218	9
KP1	T1	62.5000	22.32689	3
	T2	90.7000	47.21557	3
	T3	86.1000	60.42458	3
	Total	79.7667	42.02859	9
KP2	T1	84.1667	31.30181	3
	T2	103.4667	32.63194	3
	T3	87.8667	33.91553	3
	Total	91.8333	29.62128	9
Total	T1	71.8083	30.96069	12
	T2	96.9833	43.58386	12
	T3	113.0500	55.63742	12
	Total	93.9472	46.55602	36

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
CREA	Based on Mean	.860	11	24	.588
	Based on Median	.340	11	24	.967
	Based on Median and with adjusted df	.340	11	16.979	.963
	Based on trimmed mean	.816	11	24	.626

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: CREA

b. Design: Intercept + Perlakuan + Waktu + Perlakuan * Waktu

C. Anova Two Way

Tests of Between-Subjects Effects

Dependent Variable: CREA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	31943.523[a]	11	2903.957	1.587	.166
Intercept	317738.900	1	317738.900	173.637	.000
Perlakuan	15290.925	3	5096.975	2.785	.063
Waktu	10371.174	2	5185.587	2.834	.079
Perlakuan * Waktu	6281.424	6	1046.904	.572	.749
Error	43917.687	24	1829.904		
Total	393600.110	36			
Corrected Total	75861.210	35			

a. R Squared = .421 (Adjusted R Squared = .156)

D. Duncan

Creatinin

Duncan[a,b]

Perlakuan	N	Subset 1	Subset 2
KN	9	76,009	
KP	9	79,767	
KP1	9	91,833	91,833
KP2	9		128,178
Sig.		,467	,084

a. **Perlakuan**

KN

Duncan[a]

Waktu	N	Subset for alpha = 0.05
		1
T1	3	43.9000
T2	3	66.9667
T3	3	117.1667
Sig.		.141

KP

Duncan[a]

Waktu	N	Subset for alpha = 0.05
		1
T1	3	96.6667
T2	3	126.8000
T3	3	161.0667
Sig.		.098

KP1

Duncan[a]

Waktu	N	Subset for alpha = 0.05
		1
T1	3	62.5000
T3	3	86.1000
T2	3	90.7000
Sig.		.495

KP2

Duncan[a]

Waktu	N	Subset for alpha = 0.05
		1
T1	3	84.1667
T3	3	87.8667
T2	3	103.4667
Sig.		.509

b.   Waktu

T1

CREA

Duncan[a]

Perlakuan	N	Subset for alpha = 0.05
		1
KN	3	43.9000
KP1	3	62.5000
KP2	3	84.1667
KP	3	96.6667
Sig.		.052

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.

T2

CREA

Duncan[a]

Perlakuan	N	Subset for alpha = 0.05
		1
KN	3	66.9667
KP1	3	90.7000
KP2	3	103.4667
KP	3	126.8000
Sig.		.154

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.
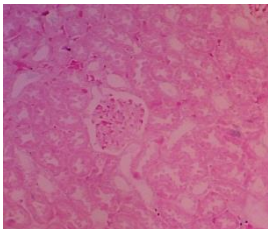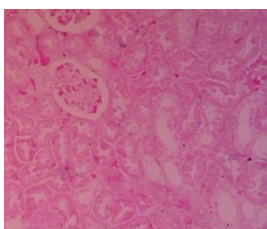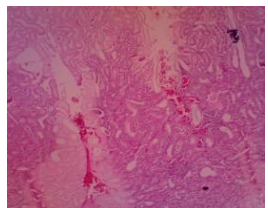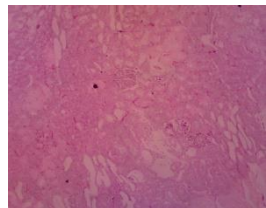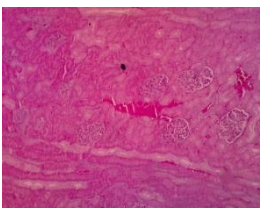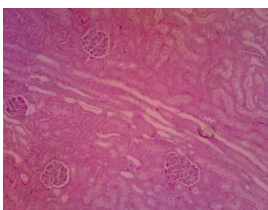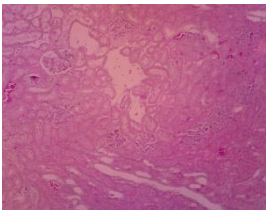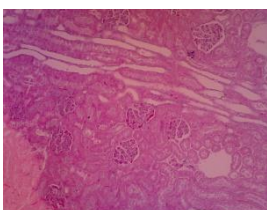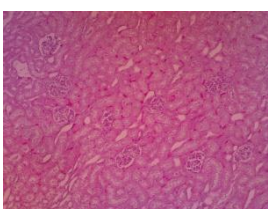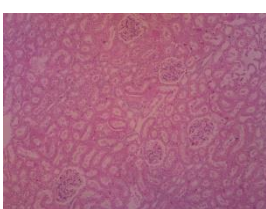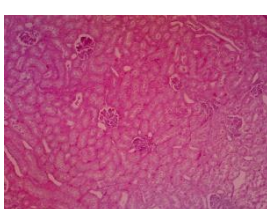
T3

CREA

Duncan[a]

Perlakuan	N	Subset for alpha = 0.05
		1
KP1	3	86.1000
KP2	3	87.8667
KN	3	117.1667
KP	3	161.0667
Sig.		.146

Means for groups in homogeneous
subsets are displayed.

a. Uses Harmonic Mean Sample Size =
3.000.

Lampiran 3. Gambar Hasil Histopatologi Ginjal

KN		
K2	K5	K7
KP		
K8	K9	K10
KP1		
K6	K14	K16
KP2		
K1	K4	K12

Lampiran 4. Dokumentasi Kegiatan Penelitian

Aklimatisasi Kelinci	
Anastesi	
Pemberian Perlakuan Syok Hemoragik	
Pemberian Resusitasi Cairan	

Pengambilan Sampel Darah	
Nekropsi	
Pemeriksaan sampel darah	
Pembuatan preparat histopatologi	

Pengamatan preparat histopatologi	

RIWAYAT HIDUP

Penulis lahir di Makassar pada tanggal 16 Juli 2000 dengan nama lengkap Alya Rifdah Yulianti yang merupakan anak kedua dari pasangan drg. Muh. Dahnial, M.Kes. dan Muda Samsu, S.Kep, Ns. Penulis telah menyelesaikan pendidikan di TK As'Adiyah Raudhatul Athfal pada tahun 2006. Kemudian melanjutkan pendidikan di SD As'adiyah 2 Pusat Sengkang dan lulus pada tahun 2012. Setelah itu, penulis melanjutkan pendidikan di MTs As'adiyah Puteri 1 Pusat Sengkang dan lulus tahun 2015. Kemudian penulis melanjutkan pendidikannya di SMA Negeri 7 Wajo dan lulus pada tahun 2018. Pada tahun 2020, penulis kemudian melanjutkan pendidikan di Program Studi Kedokteran Hewan Fakultas Kedokteran Universitas Hasanuddin melalui jalur SBMPTN. Selama masa perkuliahan berlangsung penulis aktif di organisasi internal kampus yaitu Himpunan Mahasiswa Kedokteran Hewan (HIMAKAHA) FK-UNHAS sebagai pengurus anggota bidang informasi dan komunikasi (INFOKOM) periode 2022/2023 dan berlanjut hingga periode 2023/2024. Selain itu, penulis juga aktif dalam kegiatan akademik dan menjadi anggota tim Parasitologi Veteriner.