

DAFTAR PUSTAKA

- Agarwal SK, Sethi S, Dinda AK. Basics of kidney biopsy: A nephrologist's perspective. (2013)*Indian J Nephrol*. Jul;23(4):243-52. DOI: 10.4103/0971-4065.114462. PMID: 23960337; PMCID: PMC3741965.
- Badan Penelitian Pengembangan Kesehatan, 2019. (2018). *Laporan Nasional RISKESDAS*.
- Ballak, S. B., Degens, H., de Haan, A., & Jaspers, R. T. (2014). Aging related changes in determinants of muscle force generating capacity: a comparison of muscle aging in men and male rodents. *Ageing research reviews*, 14, 43–55. <https://doi.org/10.1016/j.arr.2014.01.005>
- Barton, M., Carmona, R., Morawietz, H., Uscio, L. V, Goettsch, W., Hillen, H., Shaw, S. (2000). *Obesity Is Associated With Tissue-Specific Activation of Renal Angiotensin-Converting Enzyme In Vivo Evidence for a Regulatory Role of Endothelin*.
- Barton, M., Morawietz, H., Goettsch, W., Shaw, S., Lüscher, T. F., Haudenschild, C Münter, K. (2012). Obesity Is Associated With Tissue-Specific Activation of Renal Angiotensin-Converting Enzyme In Vivo. *Hypertension*, 35(1), 329–336. <https://doi.org/10.1161/01.hyp.35.1.329>
- Barton, M., & Schiffrin, E. L. (2014). In memoriam: Wolfgang Kiowski, M.D. (1949-2012)--pioneer in clinical endothelin research. *Life Sciences*, 118(2), 91–96. <https://doi.org/10.1016/j.lfs.2014.08.011>
- Campia U, Tesauro M, Di Daniele N, Cardillo C. The vascular endothelin system in obesity and type 2 diabetes: pathophysiology and therapeutic implications. *Life Sci*. 2014 Nov 24;118(2):149-55. DOI: 10.1016/j.lfs.2014.02.028. Epub 2014 Mar 7. PMID: 24607780.
- Cao, X., Zhou, J., Yuan, H. *et al.* (2015) Chronic kidney disease among overweight and obesity with and without metabolic syndrome in an urban Chinese cohort. *BMC Nephrol* 16, 85. <https://doi.org/10.1186/s12882-015-0083-8>
- Charan, J., & Kantharia, N. (2013). How to calculate sample size in animal studies? *Journal of Pharmacology and Pharmacotherapeutics*, 4(4), 303. <https://doi.org/10.4103/0976-500X.119726>
- Chester, A. H., & Yacoub, M. H. (2014). The role of endothelin-1 in pulmonary arterial hypertension. *Global Cardiology Science and Practice*, 2014(2), 29. <https://doi.org/10.5339/gcsp.2014.29>

- da Silva, A.A. et al., 2004. Role of Endothelin-1 in Blood Pressure Regulation in a Rat Model of Visceral Obesity and Hypertension. *Hypertension*, 43(2), pp.383– 387.
- Dita Fitriani, Andreanyta M, Denny A. The effect of long-term high-fat diet in ovariectomized Wistar rat on leptin serum levels. *J Med Sci*, Volume 48, No.2, 2016 April: 69-80.
<http://dx.doi.org/10.19106/JMedSci004802201601>
- Donato, A.J. et al., 2009. Vascular endothelial dysfunction with aging : endothelin-1 and endothelial nitric oxide synthase. , 80309.
- D’Agati, V. D., Chagnac, A., De Vries, A. P. J., Levi, M., Porrini, E., Herman-Edelstein, M., & Praga, M. (2016). Obesity-related glomerulopathy: Clinical and pathologic characteristics and pathogenesis. *Nature Reviews Nephrology*, 12(8), 453–471. <https://doi.org/10.1038/nrneph.2016.75>
- Dhaun, N., Goddard, J., & Webb, D. (2006). The Endothelin System and Its Antagonism in Chronic Kidney Disease. *Journal of the American Society of Nephrology*, 17(4), 943–955. <https://doi.org/10.1681/asn.2005121256>
- Dhaun, N., Webb, D. J., & Kluth, D. C. (2012). Endothelin-1 and the kidney - Beyond BP. *British Journal of Pharmacology*, 167(4), 720–731. <https://doi.org/10.1111/j.1476-5381.2012.02070.x>
- Engin, A. (2017). *Obesity and Lipotoxicity* (Vol. 960). <https://doi.org/10.1007/978-3-319-48382-5>
- Eriksson, A. K. S., Van Harmelen, V., Stenson, B. M., Åström, G., Wåhlén, K., Laurencikiene, J., & Rydén, M. (2009). Endothelin-1 stimulates human adipocyte lipolysis through the ET A receptor. *International Journal of Obesity*, 33(1), 67–74. <https://doi.org/10.1038/ijo.2008.212>
- Fathy, A., & Abdelrahman, A. E. (2018). EZH2, Endothelin-1, and CD34 as Biomarkers of Aggressive Cervical Squamous Cell Carcinoma: An Immunohistochemical Study. *Turk patoloji dergisi*, 34(2), 150–157. <https://doi.org/10.5146/tjpath.2018.01425>
- Goettsch, W. et al., 2001. Increased expression of endothelin-1 and inducible nitric oxide synthase isoform II in aging arteries in vivo: Implications for atherosclerosis. *Biochemical and Biophysical Research Communications*, 280(3), pp.908–913.
- Guan, Z., & Inscho, E. W. (2011). Endothelin and the renal vasculature. *Contributions to nephrology*, 172, 35–49. <https://doi.org/10.1159/000328720>

- Hales, C. M., Carroll, M. D., Fryar, C. D., & Ogden, C. L. (2017). Prevalence of Obesity Among Adults and Youth: United States, 2015–2016. NCHS data brief, no 288. Hyattsville, MD: National Center for Health Statistics. *NCHS Data Brief, No 288. Hyattsville, MD: National Center for Health Statistics.*, (288), 2015–2016. Retrieved from <https://www.cdc.gov/nchs/products/databriefs/db288.htm>
- Herman, W. H., Emancipator, S. N., Rhoten, R. L. P., Simonson, M. S., William, H., Emancipator, S. N., Vascular, M. S. S. (2019). *Vascular and glomerular expression of endothelin-1 in normal human kidney.*
- Hofman C, Francis BN, Rosenthal T, Winaver J, Rubinstein I, Abassi Z (1997). Effects of Endothelin-1 on Systemic and Renal Hemodynamics in Hypertensive-Diabetic Rats (CRDH), Diabetic Rats (CDR), and Hypertensive Rats (SHR). *J Cardiovasc Pharmacol* 2004;44:S191–S194.
- Hofman C, Rosenthal T, Winaver J, Rubinstein I, Ramadan R, Stern N, Limor R, Awad H, Abassi Z.(2011). Renal and systemic effects of endothelin-1 in diabetic-hypertensive rats. *Clin Exp Hypertens.*;33(7):444-54. doi: 10.3109/10641963.2010.549270. Epub 2011 Sep 20. PMID: 21932990.
- Hunley, T. E., Ma, L.-J., & Kon, V. (2011). Scope and Mechanisms of Obesity-Related Renal Disease. *Curr Opin Nephrol Hypertens*, 19(3), 227–234. <https://doi.org/10.1097/MNH.0b013e3283374c09.Scope>
- Idris, I., Arsyad, A., Wardihan Sinrang, A., & Alwi, S. (2018). *The Profile of Endothelin-1 (Et-1), Receptor ETA, And Receptor ETB in Young and Adult Obese Wistar Rat.* 1(Sips 2017), 147–150. <https://doi.org/10.5220/0007334501470150>
- Idris, I., Sinrang, A. W., Arsyad, A., Alwi, S., & Sandira, M. I. (2019). *The rise of circulatory endothelin (ET) -1 and endothelin receptors (ET A , ET B) expression in kidney of obese wistar rat.* 11(2), 31–35.
- Kadouh, H. C., & Acosta, A. (2017). Current paradigms in the etiology of obesity. *Techniques in Gastrointestinal Endoscopy*, 19(1), 2–11. <https://doi.org/10.1016/j.tgie.2016.12.001>
- Kawanabe&Nauli. (2016). Endothelin. *Systemic Sclerosis*, (September 2011), 155–171. https://doi.org/10.1007/978-4-431-55708-1_10
- Kelly T, Yang W, Chen CS, Reynolds K, He J. Global burden of obesity in 2005 and projections to 2030. *Int J Obes (Lond)*. 2008 Sep;32(9):1431-7. DOI: 10.1038/ijo.2008.102. Epub 2008 Jul 8. PMID: 18607383.
- Kimura, S., Sakakibara, S., Nakajima, K., Kasuya, Y., Inoue, A., Ishikawa, T., Watanabe, T. X. (2006). Primary structure, synthesis, and biological activity of rat endothelin, an endothelium-derived vasoconstrictor peptide.

- Proceedings of the National Academy of Sciences*, 85(18), 6964–6967.
<https://doi.org/10.1073/pnas.85.18.6964>
- Kohan, D. E. (2013). *The 2013 Ernest Starling Award Role of collecting duct endothelin in control of renal function and blood pressure*. 84132.
<https://doi.org/10.1152/ajpregu.00345.2013>
- Kopple, J. D., & Feroze, U. (2011). The effect of obesity on chronic kidney disease. *Journal of Renal Nutrition*, 21(1), 66–71.
<https://doi.org/10.1053/j.jrn.2010.10.009>
- Kotelevtsev, Y., & Webb, D. J. (2001). *Endothelin as a natriuretic hormone : the case for a paracrine action mediated by nitric oxide*. 51, 481–488.
- Kovesdy, C. P., Furth, S. L., Zoccali, C., & World Kidney Day Steering Committee, on behalf of the W. K. D. S. (2017). Obesity and Kidney Disease: Hidden Consequences of the Epidemic. *Canadian Journal of Kidney Health and Disease*, 4, 2054358117698669.
<https://doi.org/10.1177/2054358117698669>
- Kuc, R. E., Maguire, J. J., & Davenport, A. P. (2006a). Quantification of endothelin receptor subtypes in peripheral tissues reveals downregulation of ETA receptors in ETB-deficient mice. *Experimental Biology and Medicine*, 231(6), 741–745.
- Kuc, R. E., Maguire, J. J., & Davenport, A. P. (2006b). Quantification of endothelin receptor subtypes in peripheral tissues reveals downregulation of ETA receptors in ETB-deficient mice. *Experimental Biology and Medicine*, 231(6), 741–745.
- Qi H, Casalena G, Shi S, Yu L, Ebefors K, Sun Y, Zhang W, D'Agati V, Schlondorff D, Haraldsson B, Böttinger E, Daehn I. Glomerular Endothelial Mitochondrial Dysfunction Is Essential and Characteristic of Diabetic Kidney Disease Susceptibility. *Diabetes*. 2017 Mar;**66**(3):763-778. DOI: 10.2337/db16-0695. Epub 2016 Nov 29. PMID: 27899487; PMCID: PMC5319717.
- Rossi GP, Seccia TM, Barton M, Danser AHJ, et al. (2018). Endothelial factors in the pathogenesis and treatment of chronic kidney disease Part II: Role in disease conditions: a joint consensus statement from the European Society of Hypertension Working Group on Endothelin and Endothelial Factors and the Japanese Society of Hypertension. *J Hypertens*. Mar;**36**(3):462-471. doi: 10.1097/HJH.0000000000001600. PMID: 29135628.
- Lakkis, J. I., & Weir, M. R.(2018). Obesity and Kidney Disease. *Progress in Cardiovascular Diseases*,61(2),157–167.<https://doi.org/10.1016/j.pcvd.2018.03.003>

//doi.org/10.1016/j.pcad.2018.07.005

- Levesque, R. J. R. (2018). WHO. *Encyclopedia of Adolescence*, pp. 2561–2565. https://doi.org/10.1007/978-3-319-33228-4_447
- Lindberg&Lamps. (2018). *Dignostic Pathology NORMAL HISTOLOGY*.
- Mohamed Waleed, & Ahamed S Ashour. (2016). *Effect of obesity on Albino Rat kidney*. 4(3), 1–5. <https://doi.org/10.4172/2161-1017.1000>
- Nehus, E. (2018). Obesity and chronic kidney disease. *Current Opinion in Pediatrics*, 30(2), 241–246. <https://doi.org/10.1097/MOP.0000000000000586>
- Nesti, D. R. (2015). *Imunoreaktif Insulin Dan Glukagon Pada Pankreas Tikus (Rattus norvegicus) OBESITAS*.
- Praga M, Morales E. The Fatty Kidney: Obesity and Renal Disease. *Nephron*. 2017;136(4):273-276. doi: 10.1159/000447674. Epub Jul 15. PMID: 27414023.
- Raina R, Chauvin A, Chakraborty R, Nair N, Shah H, Krishnappa V, Kusumi K. (2020). The Role of Endothelin and Endothelin Antagonists in Chronic Kidney Disease. *Kidney Dis (Basel)*. Jan;6(1):22-34. DOI: 10.1159/000504623. Epub 2019 Dec 18. PMID: 32021871; PMCID: PMC6995952.
- Riaz, N., Wolden, S. L., Gelblum, D. Y., & Eric, J. (2016). *Endothelin and Endothelin Antagonists in Chronic Kidney Disease*. 118(24), 6072–6078. <https://doi.org/10.1002/cncr.27633>. Percutaneous
- Riskesdas. (2013). Riset Kesehatan Dasar Kementerian RI. *Proceedings, Annual Meeting - Air Pollution Control Association*, 6. <https://doi.org/10.1002/cncr.27633>. Desember 2013
- Riskesdas. (2018). *RISKESDAS 2018* (Vol. 84). Retrieved from <http://ir.obihiro.ac.jp/dspace/handle/10322/3933>
- Rossi, Gian Paolo; et all. Endothelial factors in the pathogenesis and treatment of chronic kidney disease Part I, *Journal of Hypertension*: March 2018 - Volume 36 - Issue 3 - p 451-461 DOI: 10.1097/HJH.0000000000001599.
- Sajeda, D., Kumar, L. L., Peera, K., & Raju, K. T. (2018). *Restoration of Pathological changes in Kidney Tissue from Diet Induced Obese Rats Treated With Rinachantus Snasutus (linn) Kurtz Leaf Extract*. 7(4), 822–828. <https://doi.org/10.20959/wjpps20184-11205>

- Sandhu, J. S., Singla, M., Ahuja, A., Soni, A., & Chopra, P. (2004). *Renal Risks of Obesity*. 5(4), 335–338.
- Schneider, M. P., & Mann, J. F. (2014). *Endothelin antagonism for patients with chronic kidney disease: still a hope for the future*. 69–73. <https://doi.org/10.1093/ndt/gft339>
- Shah R. Endothelins in health and disease (2007) *Eur J Intern Med*. Jul;18(4):272-82. DOI: 10.1016/j.ejim.2007.04.002. PMID: 17574100.
- Simonson, M. S., & Ismail-Beigi, F. (2011). Endothelin-1 increases collagen accumulation in renal mesangial cells by stimulating a chemokine and cytokine autocrine signaling loop. *The Journal of biological chemistry*, 286(13), 11003–11008. <https://doi.org/10.1074/jbc.M110.190793>
- Stella G. Uzogara. Obesity Epidemic, Medical and Quality of Life Consequences: A Review. *International Journal of Public Health Research*. Vol. 5, No. 1, 2017, pp. 1-12
- Sudhera, N., & Sidhu, S. (2012). Assessment of Obesity using various Anthropometric Variables among Young Adult Females of Amritsar (Punjab). *Human Biology Review*, 1(4), 365–375.
- Syndr, E. M., Maria, M., & Gene, P. (2016). Endocrinology & Metabolic Syndrome The Role of Prolactin in Men. *Endocrinology & Metabolic Syndrome*, 5(1), 1–6. <https://doi.org/10.4172/2161-1017.1000>
- Tobar, A., Ori, Y., Benchetrit, S., Milo, G., Herman-Edelstein, M., Zingerman, B., ... Chagnac, A. (2013). Proximal Tubular Hypertrophy and Enlarged Glomerular and Proximal Tubular Urinary Space in Obese Subjects with Proteinuria. *PLoS ONE*, 8(9), 1–9. <https://doi.org/10.1371/journal.pone.0075547>
- Tsuboi, N., Okabayashi, Y., Shimizu, A., & Yokoo, T. (2017). The Renal Pathology of Obesity. *Kidney International Reports*, 2(2), 251–260. <https://doi.org/10.1016/j.ekir>
- Uzogara, S. G. (2017). Obesity Epidemic, Medical and Quality of Life Consequences: A Review. <http://www.openscienceonline.com/>, 5(1), 1. <https://doi.org/7180284>
- Vignon-Zellweger, N., Heiden, S., Miyauchi, T., & Emoto, N. (2012). Endothelin and endothelin receptors in the renal and cardiovascular systems. *Life Sciences*, 91(13–14), 490–500. <https://doi.org/10.1016/j.lfs.2012.03.026>
- Virdis, A. (2016). Endothelial Dysfunction in Obesity: Role of Inflammation. *High Blood Pressure and Cardiovascular Prevention*, 23(2), 83–85.

<https://doi.org/10.1007/s40292-016-0133-8>

Weil, B. R., Westby, C. M., Van Guilden, G. P., Greiner, J. J., Stauffer, B. L., & DeSouza, C. A. (2011). Enhanced endothelin-1 system activity with overweight and obesity. *American Journal of Physiology-Heart and Circulatory Physiology*, 301(3), H689–H695.
<https://doi.org/10.1152/ajpheart.00206.2011>

Yang, C., Li, L., Yang, L., Lu, H., Wang, S., & Sun, G. (2018). Anti-obesity and Hypolipidemic effects of garlic oil and onion oil in rats fed a high-fat diet. *Nutrition and Metabolism*, 15(1), 4–11.
<https://doi.org/10.1186/s12986-018-0275-x>

Zanatta, C. M., Verónese, F. V., Da Silva Loreto, M., Sortica, D. A., Carpio, V. N., Eldeweiss, M. I. A., ... Canani, L. H. (2012). Endothelin-1 and endothelin A receptor immunoreactivity is increased in patients with diabetic nephropathy. *Renal Failure*, 34(3), 308–315.
<https://doi.org/10.3109/0886022X.2011.647301>

LAMPIRAN

Hasil uji Statistik

Grup Tikus		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Indeks Lee Hari ke-63	Tikus Control	,234	7	,200 [*]	,915	7	,431
	Tikus Fat	,142	7	,200 [*]	,988	7	,990
Indeks Lee hari ke-175	Tikus Control	,173	7	,200 [*]	,974	7	,923
	Tikus Fat	,176	7	,200 [*]	,945	7	,682
Indeks LEE H1	Tikus Control	,234	7	,200 [*]	,895	7	,299
	Tikus Fat	,321	7	,028	,860	7	,150
Kadar ELISA Cortex	Tikus Control	,157	7	,200 [*]	,953	7	,759
	Tikus Fat	,167	7	,200 [*]	,944	7	,674
Kadar ELISA Medulla	Tikus Control	,143	7	,200 [*]	,988	7	,990
	Tikus Fat	,186	7	,200 [*]	,863	7	,161
Kadar ELISA Serum	Tikus Control	,195	7	,200 [*]	,956	7	,783
	Tikus Fat	,209	7	,200 [*]	,927	7	,529

a. Lilliefors Significance Correction

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

**T-Test Kadar ELISA Serum,Cortex dan Medulla
Grup Tikus * IHK ET-1 Korteks**

Crosstab

			ET-1 Korteks			Total
			3	6	9	
Grup Tikus	Tikus Control	Count	5	2	0	7
		Expected Count	2,5	2,5	2,0	7,0
		% within Grup Tikus	71,4%	28,6%	,0%	100,0%
	Tikus Fat	Count	0	3	4	7
		Expected Count	2,5	2,5	2,0	7,0
		% within Grup Tikus	,0%	42,9%	57,1%	100,0%
Total		Count	5	5	4	14
		Expected Count	5,0	5,0	4,0	14,0
		% within Grup Tikus	35,7%	35,7%	28,6%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9,200 ^a	2	,010
Likelihood Ratio	12,678	2	,002
Linear-by-Linear Association	8,424	1	,004
N of Valid Cases	14		

a. 6 cells (100,0%) have expected count less than 5. The minimum expected count is 2,00.

Grup Tikus * IHK ET-1 Medulla

Crosstab

			ET-1 Medulla					Total
			Obese	3	4	6	9	
Grup Tikus	Tikus Control	Count	1	4	2	0	0	7
		Expected Count	,5	2,0	1,0	2,0	1,5	7,0
		% within Grup Tikus	14,3%	57,1%	28,6%	,0%	,0%	100,0%
	Tikus Fat	Count	0	0	0	4	3	7
		Expected Count	,5	2,0	1,0	2,0	1,5	7,0
		% within Grup Tikus	,0%	,0%	,0%	57,1%	42,9%	100,0%
Total	Count	1	4	2	4	3	14	
	Expected Count	1,0	4,0	2,0	4,0	3,0	14,0	
	% within Grup Tikus	7,1%	28,6%	14,3%	28,6%	21,4%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14,000 ^a	4	,007
Likelihood Ratio	19,408	4	,001
Linear-by-Linear Association	9,966	1	,002
N of Valid Cases	14		

a. 10 cells (100,0%) have expected count less than 5. The minimum expected count is ,50.

Grup Tikus * Uji Chi-Square Interpretasi skor Korteks

Crosstab

			Interpretasi skor Korteks		Total
			Ekspresi lemah	Ekspresi kuat	
Grup Tikus	Tikus Control	Count	5	2	7
		Expected Count	2,5	4,5	7,0
		% within Grup Tikus	71,4%	28,6%	100,0%
	Tikus Fat	Count	0	7	7
		Expected Count	2,5	4,5	7,0
		% within Grup Tikus	,0%	100,0%	100,0%
Total	Count	5	9	14	
	Expected Count	5,0	9,0	14,0	
	% within Grup Tikus	35,7%	64,3%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7,778 ^a	1	,005		
Continuity Correction ^b	4,978	1	,026		
Likelihood Ratio	9,873	1	,002		
Fisher's Exact Test				,021	,010
Linear-by-Linear Association	7,222	1	,007		
N of Valid Cases	14				

a. 4 cells (100,0%) have expected count less than 5. The minimum expected count is 2,50.

b. Computed only for a 2x2 table

Grup Tikus * Uji Chi-Square Skor Interpretasi Medulla

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	14,000 ^a	1	,000		
Continuity Correction ^b	10,286	1	,001		
Likelihood Ratio	19,408	1	,000		
Fisher's Exact Test				,001	,000
Linear-by-Linear Association	13,000	1	,000		
N of Valid Cases	14				

a. 4 cells (100,0%) have expected count less than 5. The minimum expected count is 3,50.

b. Computed only for a 2x2 table

Uji Chi Square IHC Glomerulus

Grup Tikus * Skor IHC Glomerulus Crosstabulation

			Skor IHC Glomerulus						Total
			2	3	4	6	8	9	
Grup Tikus	Tikus Control	Count	5	2	0	0	0	0	7
		Expected Count	2,5	1,0	,5	1,5	,5	1,0	7,0
		% within Grup Tikus	71,4%	28,6%	,0%	,0%	,0%	,0%	100,0%
	Tikus Fat	Count	0	0	1	3	1	2	7
		Expected Count	2,5	1,0	,5	1,5	,5	1,0	7,0
		% within Grup Tikus	,0%	,0%	14,3%	42,9%	14,3%	28,6%	100,0%
Total	Count	5	2	1	3	1	2	14	
	Expected Count	5,0	2,0	1,0	3,0	1,0	2,0	14,0	
	% within Grup Tikus	35,7%	14,3%	7,1%	21,4%	7,1%	14,3%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14,000 ^a	5	,016
Likelihood Ratio	19,408	5	,002
Linear-by-Linear Association	9,964	1	,002
N of Valid Cases	14		

a. 12 cells (100,0%) have expected count less than 5. The minimum expected count is ,50.

Uji Korelasi IHK Glomerulus

Grup Tikus * Interpretasi Skor Glomerulus Crosstabulation

			Interpretasi Skor Glomerulus		Total
			Ekspresi lemah	Ekspresi Kuat	
Grup Tikus	Tikus Control	Count	7	0	7
		Expected Count	4,0	3,0	7,0
		% within Grup Tikus	100,0%	,0%	100,0%
	Tikus Fat	Count	1	6	7
		Expected Count	4,0	3,0	7,0
		% within Grup Tikus	14,3%	85,7%	100,0%
Total	Count	8	6	14	
	Expected Count	8,0	6,0	14,0	
	% within Grup Tikus	57,1%	42,9%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10,500 ^a	1	,001		
Continuity Correction ^b	7,292	1	,007		
Likelihood Ratio	13,380	1	,000		
Fisher's Exact Test				,005	,002
Linear-by-Linear Association	9,750	1	,002		
N of Valid Cases	14				

a. 4 cells (100,0%) have expected count less than 5. The minimum expected count is 3,00.

b. Computed only for a 2x2 table

Uji Chi-square IHK Tubulus Proximal

Grup Tikus * Skor IHC Tubulus Proximal Crosstabulation

			Skor IHC Tubulus Proximal	
			9	Total
Grup Tikus	Tikus Control	Count	7	7
		Expected Count	7,0	7,0
		% within Grup Tikus	100,0%	100,0%
	Tikus Fat	Count	7	7
		Expected Count	7,0	7,0
		% within Grup Tikus	100,0%	100,0%
Total	Count	14	14	
	Expected Count	14,0	14,0	
	% within Grup Tikus	100,0%	100,0%	

Uji schi square IHK Tubulus Distalis

Grup Tikus * Skor IHC Tubulus Distal Crosstabulation

			Skor IHC Tubulus Distal		Total
			6	9	
Grup Tikus	Tikus Control	Count	5	2	7
		Expected Count	6,0	1,0	7,0
		% within Grup Tikus	71,4%	28,6%	100,0%
	Tikus Fat	Count	7	0	7
		Expected Count	6,0	1,0	7,0
		% within Grup Tikus	100,0%	,0%	100,0%
Total	Count	12	2	14	
	Expected Count	12,0	2,0	14,0	
	% within Grup Tikus	85,7%	14,3%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2,333 ^a	1	,127		
Continuity Correction ^b	,583	1	,445		
Likelihood Ratio	3,107	1	,078		
Fisher's Exact Test				,462	,231
Linear-by-Linear Association	2,167	1	,141		
N of Valid Cases	14				

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,00.

b. Computed only for a 2x2 table

Uji Chi square IHK Tubulus Kolektivus Korteks

Grup Tikus * Tubulus Kolektivus Korteks Crosstabulation

			Tubulus Kolektivus Korteks			Total
			2	4	6	
Grup Tikus	Tikus Control	Count	7	0	0	7
		Expected Count	4,5	2,0	,5	7,0
		% within Grup Tikus	100,0%	,0%	,0%	100,0%
	Tikus Fat	Count	2	4	1	7
		Expected Count	4,5	2,0	,5	7,0
		% within Grup Tikus	28,6%	57,1%	14,3%	100,0%
Total		Count	9	4	1	14
		Expected Count	9,0	4,0	1,0	14,0
		% within Grup Tikus	64,3%	28,6%	7,1%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7,778 ^a	2	,020
Likelihood Ratio	9,873	2	,007
Linear-by-Linear Association	6,158	1	,013
N of Valid Cases	14		

a. 6 cells (100,0%) have expected count less than 5. The minimum expected count is ,50.

Uji Chi Square IHK Lengkung Henle Tipis

Grup Tikus * Thin LH Crosstabulation

			Thin LH			Total
			4	6	9	
Grup Tikus	Tikus Control	Count	1	4	2	7
		Expected Count	,5	5,5	1,0	7,0
		% within Grup Tikus	14,3%	57,1%	28,6%	100,0%
	Tikus Fat	Count	0	7	0	7
		Expected Count	,5	5,5	1,0	7,0
		% within Grup Tikus	,0%	100,0%	,0%	100,0%
Total	Count	1	11	2	14	
	Expected Count	1,0	11,0	2,0	14,0	
	% within Grup Tikus	7,1%	78,6%	14,3%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1,077 ^a	1	,299		
Continuity Correction ^b	,000	1	1,000		
Likelihood Ratio	1,463	1	,226		
Fisher's Exact Test				1,000	,500
Linear-by-Linear Association	1,000	1	,317		
N of Valid Cases	14				

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,50.

b. Computed only for a 2x2 table

Uji Chi-Square Duktus Kolektivus Medulla

Grup Tikus * Skor Duktus Kolektivus medulla Crosstabulation

			Skor Duktus Kolektivus medulla			Total
			2	4	6	
Grup Tikus	Tikus Control	Count	7	0	0	7
		Expected Count	3,5	,5	3,0	7,0
		% within Grup Tikus	100,0%	,0%	,0%	100,0%
	Tikus Fat	Count	0	1	6	7
		Expected Count	3,5	,5	3,0	7,0
		% within Grup Tikus	,0%	14,3%	85,7%	100,0%
Total		Count	7	1	6	14
		Expected Count	7,0	1,0	6,0	14,0
		% within Grup Tikus	50,0%	7,1%	42,9%	100,0%

Grup Tikus * Skor interpretasi MCD Crosstabulation

			Skor interpretasi MCD		Total
			Ekspresi lemah	Ekspresi Kuat	
Grup Tikus	Tikus Control	Count	7	0	7
		Expected Count	4,0	3,0	7,0
		% within Grup Tikus	100,0%	,0%	100,0%
	Tikus Fat	Count	1	6	7
		Expected Count	4,0	3,0	7,0
		% within Grup Tikus	14,3%	85,7%	100,0%
Total	Count	8	6	14	
	Expected Count	8,0	6,0	14,0	
	% within Grup Tikus	57,1%	42,9%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10,500 ^a	1	,001		
Continuity Correction ^b	7,292	1	,007		
Likelihood Ratio	13,380	1	,000		
Fisher's Exact Test				,005	,002
Linear-by-Linear Association	9,750	1	,002		
N of Valid Cases	14				

a. 4 cells (100,0%) have expected count less than 5. The minimum expected count is 3,00.

b. Computed only for a 2x2 table

Uji Chi Square IHK Arteri

Grup Tikus * Skor Arteri Crosstabulation

			Skor Arteri				Total
			2	3	4	6	
Grup Tikus	Tikus Control	Count	3	1	3	0	7
		Expected Count	1,5	,5	3,0	2,0	7,0
		% within Grup Tikus	42,9%	14,3%	42,9%	,0%	100,0%
	Tikus Fat	Count	0	0	3	4	7
		Expected Count	1,5	,5	3,0	2,0	7,0
		% within Grup Tikus	,0%	,0%	42,9%	57,1%	100,0%
Total	Count	3	1	6	4	14	
	Expected Count	3,0	1,0	6,0	4,0	14,0	
	% within Grup Tikus	21,4%	7,1%	42,9%	28,6%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8,000 ^a	3	,046
Likelihood Ratio	11,090	3	,011
Linear-by-Linear Association	7,222	1	,007
N of Valid Cases	14		

a. 8 cells (100,0%) have expected count less than 5. The minimum expected count is ,50.

Grup Tikus * Interpretasi skor Arteri Crosstabulation

			Interpretasi skor Arteri		Total
			Ekspresi lemah	Ekspresi Kuat	
Grup Tikus	Tikus Control	Count	7	0	7
		Expected Count	5,0	2,0	7,0
		% within Grup Tikus	100,0%	,0%	100,0%
	Tikus Fat	Count	3	4	7
		Expected Count	5,0	2,0	7,0
		% within Grup Tikus	42,9%	57,1%	100,0%
Total	Count	10	4	14	
	Expected Count	10,0	4,0	14,0	
	% within Grup Tikus	71,4%	28,6%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5,600 ^a	1	,018		
Continuity Correction ^b	3,150	1	,076		
Likelihood Ratio	7,191	1	,007		
Fisher's Exact Test				,070	,035
Linear-by-Linear Association	5,200	1	,023		
N of Valid Cases	14				

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,00.

b. Computed only for a 2x2 table

Uji Chi Square IHK Vena

Grup Tikus * Skor Vena Crosstabulation

			Skor Vena			Total
			2	3	4	
Grup Tikus	Tikus Control	Count	7	0	0	7
		Expected Count	5,5	,5	1,0	7,0
		% within Grup Tikus	100,0%	,0%	,0%	100,0%
	Tikus Fat	Count	4	1	2	7
		Expected Count	5,5	,5	1,0	7,0
		% within Grup Tikus	57,1%	14,3%	28,6%	100,0%
Total	Count	11	1	2	14	
	Expected Count	11,0	1,0	2,0	14,0	
	% within Grup Tikus	78,6%	7,1%	14,3%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3,818 ^a	2	,148
Likelihood Ratio	4,988	2	,083
Linear-by-Linear Association	3,218	1	,073
N of Valid Cases	14		

a. 4 cells (66,7%) have expected count less than 5. The minimum expected count is ,50.

Uji Chi Square IHK Vasa Recta

Grup Tikus * Skor VR Crosstabulation

			Skor VR			Total
			2	6	9	
Grup Tikus	Tikus Control	Count	6	1	0	7
		Expected Count	3,0	3,5	,5	7,0
		% within Grup Tikus	85,7%	14,3%	,0%	100,0%
	Tikus Fat	Count	0	6	1	7
		Expected Count	3,0	3,5	,5	7,0
		% within Grup Tikus	,0%	85,7%	14,3%	100,0%
Total	Count	6	7	1	14	
	Expected Count	6,0	7,0	1,0	14,0	
	% within Grup Tikus	42,9%	50,0%	7,1%	100,0%	

Grup Tikus * Interpretasi skor Vasa Recta Crosstabulation

			Interpretasi skor Vasa Recta		Total
			Ekspresi lemah	Ekspresi Kuat	
Grup Tikus	Tikus Control	Count	6	1	7
		Expected Count	3,0	4,0	7,0
		% within Grup Tikus	85,7%	14,3%	100,0%
	Tikus Fat	Count	0	7	7
		Expected Count	3,0	4,0	7,0
		% within Grup Tikus	,0%	100,0%	100,0%
Total	Count	6	8	14	
	Expected Count	6,0	8,0	14,0	
	% within Grup Tikus	42,9%	57,1%	100,0%	

Uji Korelasi dan uji Chi Square Skor PAS Staining

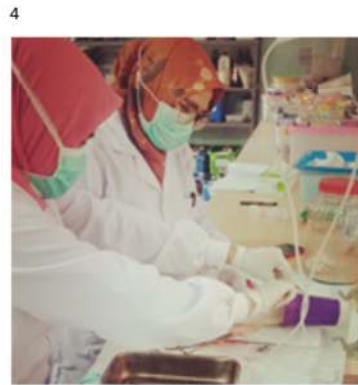
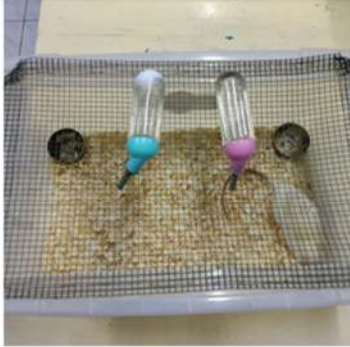
			PAS Staining				Total
			tidak terwarnai	terwarnai <25%	terwarnai 25-50%	terwarnai 50-75%	
Grup Tikus	Tikus Control	Count	3	4	0	0	7
		Expected Count	1,5	2,5	1,5	1,5	7,0
		% within Grup Tikus	42,9%	57,1%	,0%	,0%	100,0%
Tikus Fat	Tikus Fat	Count	0	1	3	3	7
		Expected Count	1,5	2,5	1,5	1,5	7,0
		% within Grup Tikus	,0%	14,3%	42,9%	42,9%	100,0%
Total	Total	Count	3	5	3	3	14
		Expected Count	3,0	5,0	3,0	3,0	14,0
		% within Grup Tikus	21,4%	35,7%	21,4%	21,4%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10,800 ^a	3	,013
Likelihood Ratio	14,404	3	,002
Linear-by-Linear Association	8,667	1	,003
N of Valid Cases	14		

a. 8 cells (100,0%) have expected count less than 5. The minimum expected count is 1,50.

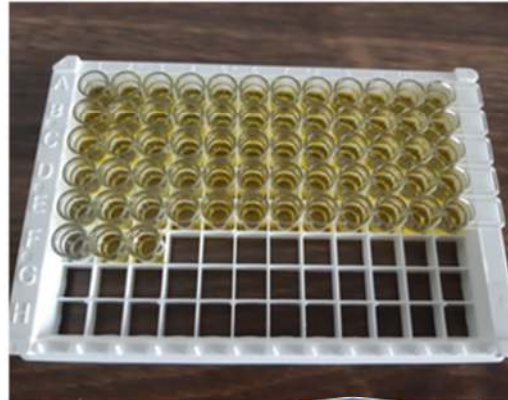
Metodologi Penelitian



ELISA



Rat ET-1; Bioenzym



96 well



OD 450 nm



curve expert 1,4

IHK



Pemotongan



Deparafinisasi



Blocking Endogen Peroksida



Pemberian antibody sekunder/primer



DAB



Hematoksilin Meyer



Dehidrasi

GeneTex Cat No. GTX22786; 1:250 (Monoclonal antibody)

PAS



1 Periodic acid selama 5 menit

2 Reagent Hematoksilin harris 6 menit

3 Acid alkohol 3-5 menit

4 Dehidrasi, clearing dan mounting

