DAFTAR PUSTAKA

Åberg, D., Jood, K., Blomstrand, C., Jern, C., Nilsson, M., Isgaard, J., & Åberg, N. D. (2011). Serum IGF-I levels correlate to improvement of functional outcome after ischemic stroke. *The Journal of Clinical Endocrinology & Metabolism*, *96*(7), E1055-E1064.

Åberg, N. D., Åberg, D., Jood, K., Nilsson, M., Blomstrand, C., Kuhn, H. G., ... & Isgaard, J. (2018). Altered levels of circulating insulin-like growth factor I (IGF-I) following ischemic stroke are associated with outcome-a prospective observational study. *BMC neurology*, *18*, 1-12.

Åberg, N. D., Åberg, D., Lagging, C., Holmegaard, L., Redfors, P., Jood, K., ... & Isgaard, J. (2020). Association between levels of serum insulin-like growth factor I and functional recovery, mortality, and recurrent stroke at a 7-year follow-up. *Experimental and Clinical Endocrinology & Diabetes*, *128*(05), 303-310.

Åberg, N. D., Brywe, K. G., & Isgaard, J. (2006). Aspects of growth hormone and insulin-like growth factor-I related to neuroprotection, regeneration, and functional plasticity in the adult brain. *The scientific world journal*, *6*(1), 53-80.

Allard, J. B., & Duan, C. (2018). IGF-binding proteins: why do they exist and why are there so many? Front Endocrinol (Lausanne). 2018; 9: 117.

Armbrust, M., Worthmann, H., Dengler, R., Schumacher, H., Lichtinghagen, R., Eschenfelder, C. C., ... & Ebinger, M. (2017). Circulating insulin-like growth factor-1 and insulin-like growth factor binding protein-3 predict three-months outcome after ischemic stroke. *Experimental and Clinical Endocrinology & Diabetes*, *125*(07), 485-491.

Benarroch, E. E. (2012). Insulin-like growth factors in the brain and their potential clinical implications. *Neurology, 79*(21), 2148-2153.

Bhalla, S., Mehan, S., Khan, A., & Rehman, M. U. (2022). Protective role of IGF-1 and GLP-1 signaling activation in neurological dysfunctions. *Neuroscience & Biobehavioral Reviews*, 104896.

Bots SH, Peters SAE, Woodward M. Sex differences in coronary heart disease and stroke mortality: A global assessment of the effect of ageing between 1980 and 2010. BMJ Glob Heal; 2017. 2(2):1–8. DOI: 10.1136/bmjgh-2017-000298.

Broderick, J. P., Adeoye, O., & Elm, J. (2017). Evolution of the modified Rankin scale and its use in future stroke trials. *Stroke*, *48*(7), 2007-2012.

Caplan, L.R. (2016) *Caplan's Stroke A Clinical Approach*. Fifth Edit. Cambridge University Press.

nde, N. A., Lingsma, H. F., Mulder, M. J., Venema, E., Dijkland, R CLEAN Investigators*. (2020). National Institutes of Health an alternative primary outcome measure for trials of acute chemic stroke. *Stroke*, *51*(1), 282-290.

De Smedt, A., Brouns, R., Uyttenboogaart, M., De Raedt, S., Moens, M., Wilczak, N., ... & De Keyser, J. (2011). Insulin-like growth factor I serum levels influence ischemic stroke outcome. *Stroke*, *42*(8), 2180-2185.

Dyer, A. H., Vahdatpour, C., Sanfeliu, A., & Tropea, D. (2016). The role of Insulin-Like Growth Factor 1 (IGF-1) in brain development, maturation and neuroplasticity. *Neuroscience*, *325*, 89-99.

Feigin, V. L., Brainin, M., Norrving, B., Martins, S., Sacco, R. L., Hacke, W., ... & Lindsay, P. (2022). World Stroke Organization (WSO): global stroke fact sheet 2022. *International Journal of Stroke*, *17*(1), 18-29.

Fernandez, A. M., & Torres-Alemán, I. (2012). The many faces of insulin-like peptide signalling in the brain. *Nature Reviews Neuroscience*, *13*(4), 225-239.

GBD 2019 Stroke Collaborators. Global, regional, and national burden of stroke and its risk factors, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Neurol 2021; 20: 795–820

Genis, L., Dávila, D., Fernandez, S., Pozo-Rodrigálvarez, A., Martínez-Murillo, R., & Torres-Aleman, I. (2014). Astrocytes require insulin-like growth factor I to protect neurons against oxidative injury. *F1000Research*, *3*.

Guan, J., Bennet, L., Gluckman, P. D., & Gunn, A. J. (2003). Insulin-like growth factor-1 and post-ischemic brain injury. *Progress in neurobiology*, *70*(6), 443-462.

Gunnell, D., Miller, L. L., Rogers, I., Holly, J. M., & ALSPAC Study Team. (2005). Association of insulin-like growth factor I and insulin-like growth factor–binding protein-3 with intelligence quotient among 8-to 9-year-old children in the Avon Longitudinal Study of Parents and Children. *Pediatrics*, *116*(5), e681-e686.

Harris, S., Sungkar, S., Rasyid, A., Kurniawan, M., Mesiano, T., & Hidayat, R. (2018). TOAST subtypes of ischemic stroke and its risk factors: a hospital-based study at Cipto Mangunkusumo Hospital, Indonesia. *Stroke research and treatment*, *2018*.

Hayes, C. A., Valcarcel-Ares, M. N., & Ashpole, N. M. (2021). Preclinical and clinical evidence of IGF-1 as a prognostic marker and acute intervention with ischemic stroke. *Journal of Cerebral Blood Flow & Metabolism*, *41*(10), 2475-2491.

Kemenkes RI. (2019). Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/MENKES/394/2019 Tentang Pedoman Nasional Pelayanan Kedokteran Tata Laksana Stroke.

Kurniawan M, et al. (2017) 'Biomolekuler Stroke' in Buku Ajar Neurologi Edisi 2. Jakarta: Penerbit Kedokteran Indonesia, pp. 122–135.

Kwah, L. K., & Diong, J. (2014). National institutes of health stroke scale (NIHSS). *Journal of physiotherapy*.

tlou, H., Hamzehpur, N., Kia, S., & Safdarian, M. (2016). insulin-like growth factor-I with the severity and outcomes of stroke. *Iranian Journal of Neurology*, *15*(4), 214.

Ardhi, M. S., & Susanto, H. (2024). PROFILE OF STIC, RISK FACTOR, AND CLINICAL SEVERITY OF ROKE PATIENTS. *MNJ (Malang Neurology Journal)*, *10*(1),

Pusat Data dan Informasi Kementrian Kesehatan RI. (2019). Infodatin Stroke 2019. Kementrian Kesehatan Republik Indonesia. 1-10

Russo, V. C., Gluckman, P. D., Feldman, E. L., & Werther, G. A. (2005). The insulin-like growth factor system and its pleiotropic functions in brain. *Endocrine reviews*, *26*(7), 916-943.

Saber, H., Himali, J. J., Beiser, A. S., Shoamanesh, A., Pikula, A., Roubenoff, R., ... & Seshadri, S. (2017). Serum insulin-like growth factor 1 and the risk of ischemic stroke: the Framingham study. *Stroke*, *48*(7), 1760-1765.

Salaudeen, M. A., Bello, N., Danraka, R. N., & Ammani, M. L. (2024). Understanding the Pathophysiology of Ischemic Stroke: The Basis of Current Therapies and Opportunity for New Ones. *Biomolecules*, *14*(3), 305.

Shaheen, H., Sobhy, S., El Mously, S., Niazi, M., & Gomaa, M. (2018). Insulin-like growth factor-1 in acute ischemic stroke. *The Egyptian journal of neurology, psychiatry and neurosurgery*, *54*(1), 1-5.

Shekhar, S., Travis, O. K., He, X., Roman, R. J., & Fan, F. (2017). Menopause and ischemic stroke: a brief review. *MOJ toxicology*, *3*(4).

Sohrabji, F., & Williams, M. (2013). Stroke neuroprotection: oestrogen and insulin-like growth factor-1 interactions and the role of microglia. *Journal of neuroendocrinology*, *25*(11), 1173-1181.

Suda, K., Matsumoto, R., Fukuoka, H., Iguchi, G., Hirota, Y., Nishizawa, H., ... & Takahashi, Y. (2016). The influence of type 2 diabetes on serum GH and IGF-I levels in hospitalized Japanese patients. Growth Hormone & IGF Research, 29, 4-10.

Tang, J. H., Ma, L. L., Yu, T. X., Zheng, J., Zhang, H. J., Liang, H., & Shao, P. (2014). Insulin-like growth factor-1 as a prognostic marker in patients with acute ischemic stroke. *PloS one*, *9*(6), e99186.

Tedjo, R. A. A., Savitri, M. O. D., & Putra, S. E. Correlation Between Acute Phase Delta NIHSS and Quality of Life Score in Post Thrombotic Infarct Stroke Patient in Dr. Moewardi General Hospital via Tele-Stroke Specific Quality of Life-12 Questionnaire (SSQOL-12). *Smart Medical Journal*, *6*(3), 132-139.

Velez, L., Toffel, S., Trejo-Lopez, J., Kresak, J. L., & Beal, S. G. (2020). Educational case: etiologies, mechanisms, and treatment of stroke. *Academic Pathology*, *7*, 2374289520901817.

Wrigley, S., Arafa, D., & Tropea, D. (2017). Insulin-like growth factor 1: at the crossroads of brain development and aging. *Frontiers in cellular neuroscience*, *11*, 14.

Yao, Y., Zhu, H., Zhu, L., Fang, Z., Fan, Y., Liu, C., ... & Shen, C. (2020). A comprehensive contribution of genetic variations of the insulin-like growth ing pathway to stroke susceptibility. *Atherosclerosis*, *296*, 59-

LAMPIRAN

Lampiran 1. Lembar skor NIHSS

LEMBAR NATIONAL INSTITUTES OF HEALTH STROKE SCORE

(NIHSS)

NAMA :

UMUR :

AKTIVITAS		Nilai		
		Onset hari ke 0-14	Keluar RS	Onset hari ke-30
1.a Derajat kesadaran	0= sadar penuh			
	1 = somnolen			
	2 = stupor			
	3 = koma			
1.b menjawab pertanyaan	0 = dapat menjawab 2 pertanyaan dengan benar (mis: bulan berapa dan usia)			
	1 =Hanya dapay menjawab 1 pertanyaan dengan benar/tidak dapat berbicara karena terpasang pipa endotrakeal			
	2= tidak bisa manjawab kedua pertanyaan dengan benar/ afasia/ stupor			
1. c Mengikuti perintah	0 = Dapat melakukan 2 perintah dengan benar (mis: buka mata dan tutup mata)			
	1 = Hanya dapat melakukan 1 perintah dengan benar			
	2 = Tidak dapat melakukan perintah dengan benar			
2. Gerakan mata konjugat hori	0 = Normal			
	akan abnormal hanya pada ata			
	iasi konyugar yang kuat resis konyugat total pada mata			
	k ada gangguan			

3. Lapang pandang	1 = Kuadranopia			
	2 = Hemianopia			
	3 = Hemianopia total			
	4 = Hemianopia bilateral/ buta kortikal			
4. Parese wajah	0 = Normal			
	1 = Paresis ringan			
	2 = Paresis parsial			
	3 = Paresis total			
5. Motorik lengan kanan	0 = Tidak ada simpangan bila pasien disuruh mengangkat lengannya selama 10 detik			
	1 = Langan menyimpang ke bawahn sebelum 10 detik			
	2 = Lengan terjatuh ke kasur atau badan atau tidak dapat diluruskan secara penuh			
	3 = Tidak dapat melawan gravitasi			
	4 = Tidak ada gerakan			
	X = Tidak dapat diperiksa			
6. Motorik lengan kiri	Idem No. 5			
7. Motorik tungkai kanan	Idem No. 5			
8. Motorik tungkai kiri	Idem No. 5			
9. Ataksia anggota badan	0 = Tidak ada			
	1 = Pada satu ekstremitas			
	2 = Pada dua ekstremitas			
	X = Tidak dapat diperiksa			
10. Sensorik	0 = Normal			
	1 = Defisit parsial yaitu merasa tai berkurang			
	...isit total yaitu pasien tidak ... atau terdapat gangguan			
11. terb...	...ak ada afasia			
	...sia ringan-sedang			
	...sia berat			

	X= tidak dapat bicara (bisu)/ afasia global/ koma			
12. Disartria	0 = Artikulasi normal			
	1 = Disartria ringan-sedang			
	2 = Disartria berat			
	X =tidak dapat diperiksa			
13. Neglect/ tidak ada atensi	0 = Tidak ada			
	1 = Parsial			
	2 =Total			
Nilai total				

Lampiran 2. Data analisa statistik

Frequencies

Statistics

		JK	Kejadian Stroke
N	Valid	82	82
	Missing	0	0

Frequency Table

JK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	43	52.4	52.4	52.4
	Perempuan	39	47.6	47.6	100.0
	Total	82	100.0	100.0	

Kejadian Stroke

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sehat	21	25.6	25.6	25.6
	Stroke Ringan (NIHSS < 5)	25	30.5	30.5	56.1
	Stroke Sedang-Berat (NIHSS >=5)	36	43.9	43.9	100.0
	Total	82	100.0	100.0	

Frequencies

Statistics

		JK	Kejadian Stroke	KatGDP
N	Valid	82	82	75
	Missing	0	0	7

Frequency Table

JK

	Frequency	Percent	Valid Percent	Cumulative Percent
	43	52.4	52.4	52.4
	39	47.6	47.6	100.0
	82	100.0	100.0	

Kejadian Stroke

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sehat	21	25.6	25.6	25.6
	Stroke Ringan (NIHSS < 5)	25	30.5	30.5	56.1
	Stroke Sedang-Berat (NIHSS >=5)	36	43.9	43.9	100.0
	Total	82	100.0	100.0	

KatGDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NORMAL	61	74.4	81.3	81.3
	DM	14	17.1	18.7	100.0
	Total	75	91.5	100.0	
Missing	System	7	8.5		
Total		82	100.0		

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
IGF1	82	100.0%	0	0.0%	82	100.0%
USIA	82	100.0%	0	0.0%	82	100.0%

Descriptives

			Statistic	Std. Error
IGF1	Mean		.6372	.15199
	95% Confidence Interval for Mean	Lower Bound	.3348	
		Upper Bound	.9397	
	5% Trimmed Mean		.4134	
	Median		.4034	
	Variance		1.894	
	Std. Deviation		1.37633	
	Minimum		.35	
			12.29	
			11.94	
	e Range		.01	
			7.836	.266
			65.558	.526
			57.55	1.040
		Lower Bound	55.48	

95% Confidence Interval for Mean	Upper Bound	59.62	
5% Trimmed Mean		57.74	
Median		56.00	
Variance		88.621	
Std. Deviation		9.414	
Minimum		34	
Maximum		80	
Range		46	
Interquartile Range		14	
Skewness		-.109	.266
Kurtosis		-.013	.526

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IGF1	.470	82	<.001	.172	82	<.001
USIA	.102	82	.035	.982	82	.291

a. Lilliefors Significance Correction

IGF1

Normal Q–Q Plot of IGF1

Detrended Normal Q–Q Plot of IGF1
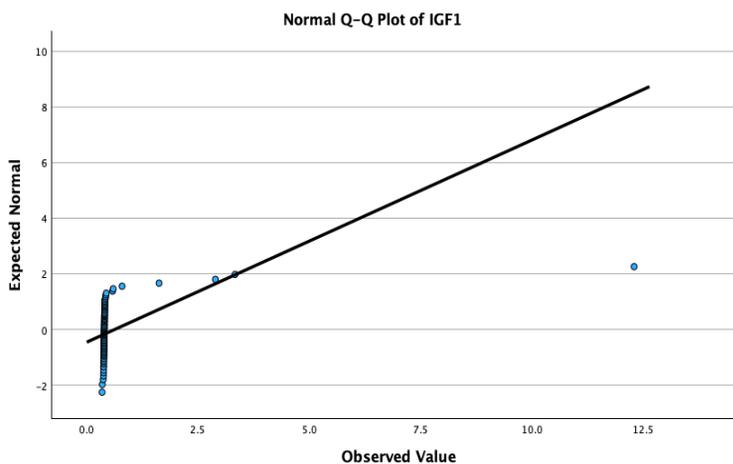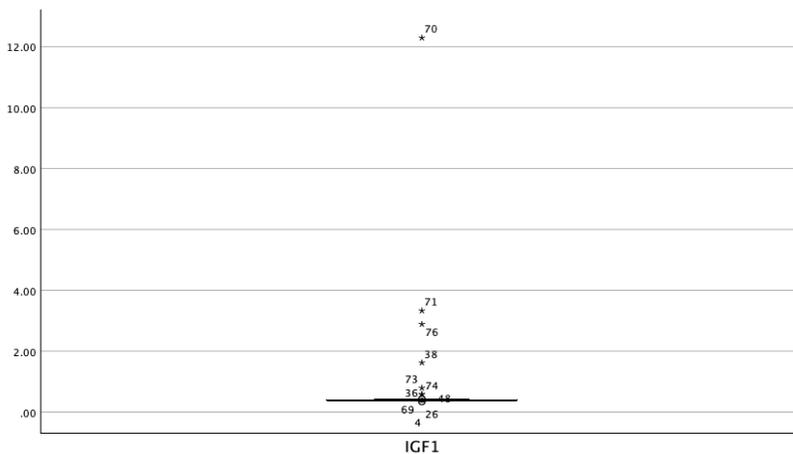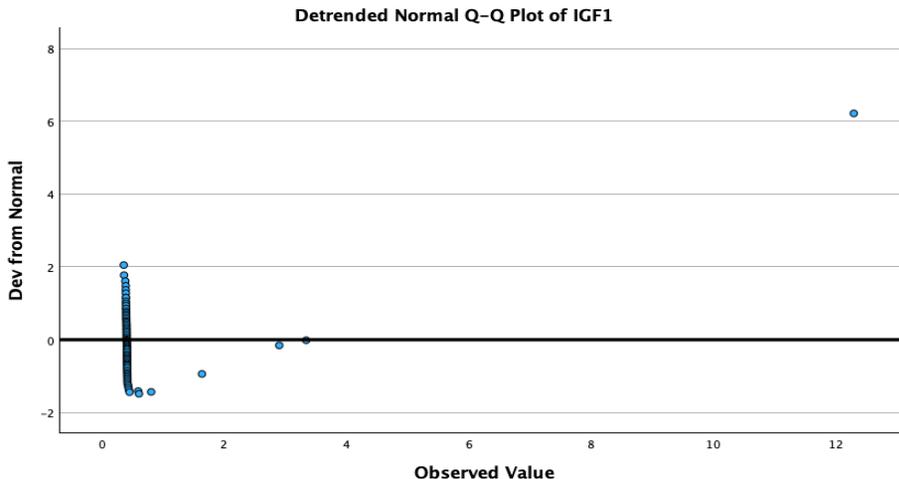
USIA
USIA Stem-and-Leaf Plot
 Frequency   Stem & Leaf
    3.00   3 . 446
   12.00   4 . 056668889999
   33.00   5 . 001111222333344445555555566667889
   24.00   6 . 000113333444555566667789
    9.00   7 . 000122336

e(s)

Normal Q–Q Plot of USIA

Detrended Normal Q–Q Plot of USIA
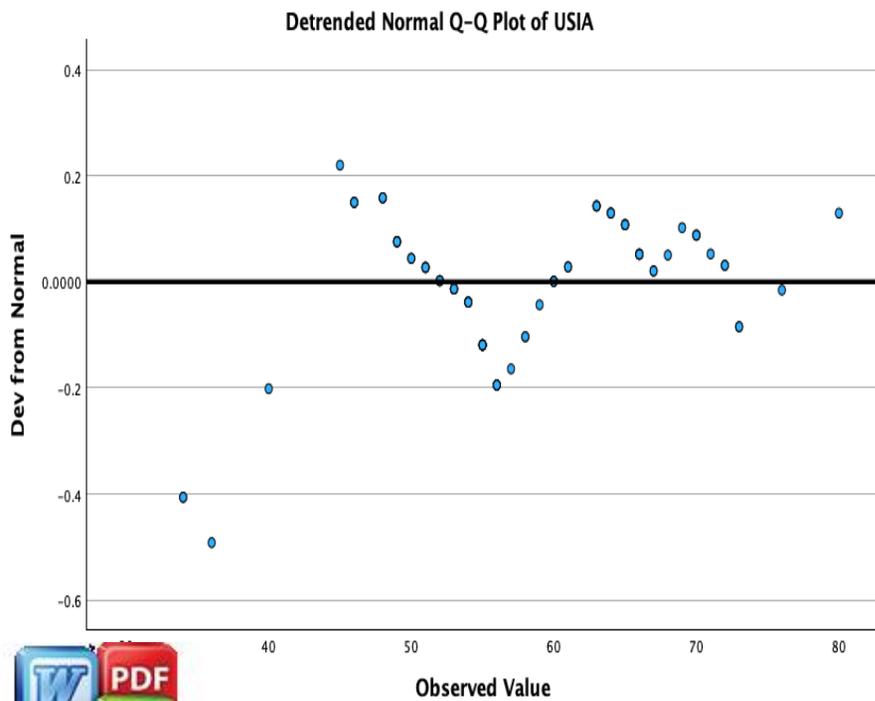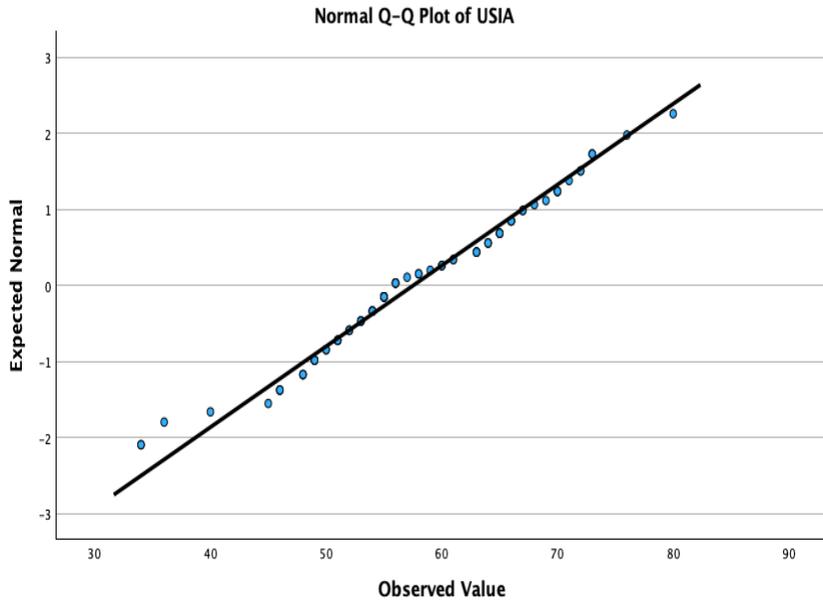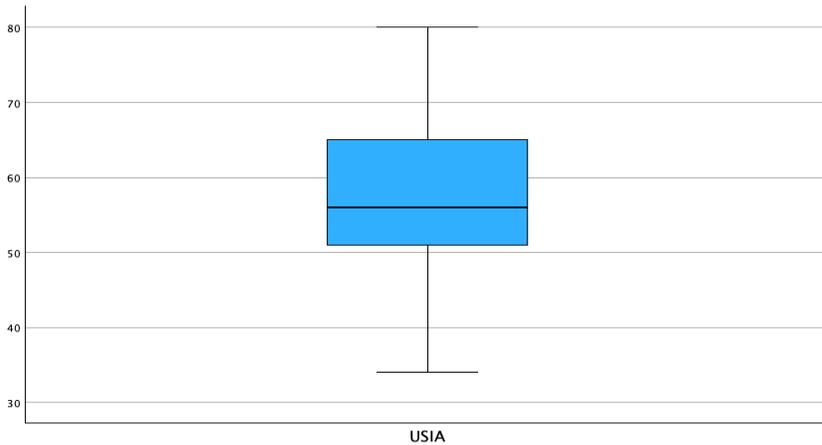
NPar Tests
Kruskal-Wallis Test

Ranks

	Kejadian Stroke	N	Mean Rank
USIA	Sehat	21	39.10
	Stroke Ringan (NIHSS < 5)	25	40.98
	Stroke Sedang-Berat (NIHSS >=5)	36	43.26
	Total	82	

Test Statistics[a,b]

	USIA
Kruskal-Wallis H	.424
df	2
Asymp. Sig.	.809

a. Kruskal Wallis Test
b. Grouping Variable: Kejadian
Stroke

Explore
Kejadian Stroke

Case Processing Summary

				Cases			
		Valid		Missing		Tota	
	Kejadian Stroke	N	Percent	N	Percent	N	F
USIA	Sehat	21	100.0%	0	0.0%	21	
	Stroke Ringan (NIHSS < 5)	25	100.0%	0	0.0%	25	
	Stroke Sedang-Berat (NIHSS >=5)	36	100.0%	0	0.0%	36	

Descriptives

	Kejadian Stroke			Statistic	Std. Error
USIA	Sehat	Mean		56.52	2.056
		95% Confidence Interval for Mean	Lower Bound	52.24	
			Upper Bound	60.81	
		5% Trimmed Mean		56.84	
		Median		55.00	
		Variance		88.762	
		Std. Deviation		9.421	
		Minimum		34	
		Maximum		73	
		Range		39	
		Interquartile Range		15	
		Skewness		-.365	.501
		Kurtosis		.023	.972
	Stroke Ringan (NIHSS < 5)	Mean		57.08	2.050
		95% Confidence Interval for Mean	Lower Bound	52.85	
			Upper Bound	61.31	
		5% Trimmed Mean		57.47	
		Median		56.00	
		Variance		105.077	
		Std. Deviation		10.251	
		Minimum		34	
		Maximum		73	
		Range		39	
		Interquartile Range		14	
		Skewness		-.471	.464
		Kurtosis		-.032	.902
	rat 5)	Mean		58.47	1.497
		95% Confidence Interval for Mean	Lower Bound	55.43	
			Upper Bound	61.51	
		5% Trimmed Mean		58.28	
		Median		56.00	
		Variance		80.656	
		Std. Deviation		8.981	

Minimum	40	
Maximum	80	
Range	40	
Interquartile Range	13	
Skewness	.446	.393
Kurtosis	-.093	.768

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
KatGDP * Kejadian Stroke	75	91.5%	7	8.5%	82	100.0%
JK * Kejadian Stroke	82	100.0%	0	0.0%	82	100.0%

KatGDP * Kejadian Stroke

Crosstab

			Kejadian Stroke			Total
			Sehat	Stroke Ringan (NIHSS < 5)	Stroke Sedang-Berat (NIHSS >=5)	
KatGDP	NORMAL	Count	19	18	24	61
		% within KatGDP	31.1%	29.5%	39.3%	100.0%
	DM	Count	2	4	8	14
		% within KatGDP	14.3%	28.6%	57.1%	100.0%
Total		Count	21	22	32	75
		% within KatGDP	28.0%	29.3%	42.7%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.005[a]	2	.367
Likelihood Ratio	2.143	2	.343
Linear-by-Linear Association	1.970	1	.160
N of Valid Cases	75		

ve expected count less than 5. The minimum expected

JK * Kejadian Stroke

Crosstab

			Kejadian Stroke			Total
			Sehat	Stroke Ringan (NIHSS < 5)	Stroke Sedang-Berat (NIHSS >=5)	
JK	Laki-laki	Count	10	15	18	43
		% within JK	23.3%	34.9%	41.9%	100.0%
	Perempuan	Count	11	10	18	39
		% within JK	28.2%	25.6%	46.2%	100.0%
Total		Count	21	25	36	82
		% within JK	25.6%	30.5%	43.9%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.855[a]	2	.652
Likelihood Ratio	.859	2	.651
Linear-by-Linear Association	.001	1	.971
N of Valid Cases	82		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.99.

NPar Tests
Kruskal-Wallis Test

Ranks

	Kejadian Stroke	N	Mean Rank
IGF1	Sehat	21	53.69
	Stroke Ringan (NIHSS < 5)	25	34.56
	Stroke Sedang-Berat (NIHSS >=5)	36	39.21
	Total	82	

Test Statistics[a,b]

	IGF1
	7.960
	2
	.019

t
: Kejadian

Explore
Kejadian Stroke

Case Processing Summary

	Kejadian Stroke	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
IGF1	Sehat	21	100.0%	0	0.0%	21	100.0%
	Stroke Ringan (NIHSS < 5)	25	100.0%	0	0.0%	25	100.0%
	Stroke Sedang-Berat (NIHSS >=5)	36	100.0%	0	0.0%	36	100.0%

Descriptives

	Kejadian Stroke			Statistic	Std. Error
IGF1	Sehat	Mean		1.2660	.57894
		95% Confidence Interval for Mean	Lower Bound	.0583	
			Upper Bound	2.4736	
		5% Trimmed Mean		.7256	
		Median		.4072	
		Variance		7.039	
		Std. Deviation		2.65305	
		Minimum		.39	
		Maximum		12.29	
		Range		11.90	
		Interquartile Range		.20	
		Skewness		3.976	.501
		Kurtosis		16.692	.972
	Stroke Ringan (NIHSS < 5)	Mean		.4475	.04946
		95% Confidence Interval for Mean	Lower Bound	.3455	
			Upper Bound	.5496	
		5% Trimmed Mean		.4002	
		Median		.3991	
		Variance		.061	
		Std. Deviation		.24729	
		Minimum		.35	
		Maximum		1.63	
		Range		1.28	
		Interquartile Range		.01	
		Skewness		4.960	.464
		Kurtosis		24.727	.902
		Mean		.4022	.00202
		95% Confidence Interval for Mean	Lower Bound	.3981	
			Upper Bound	.4063	
		5% Trimmed Mean		.4017	

(NIHSS >=5)	Median	.4044	
	Variance	.000	
	Std. Deviation	.01210	
	Minimum	.38	
	Maximum	.45	
	Range	.07	
	Interquartile Range	.02	
	Skewness	1.065	.393
	Kurtosis	4.007	.768

GGraph

Error Bars: 95% CI
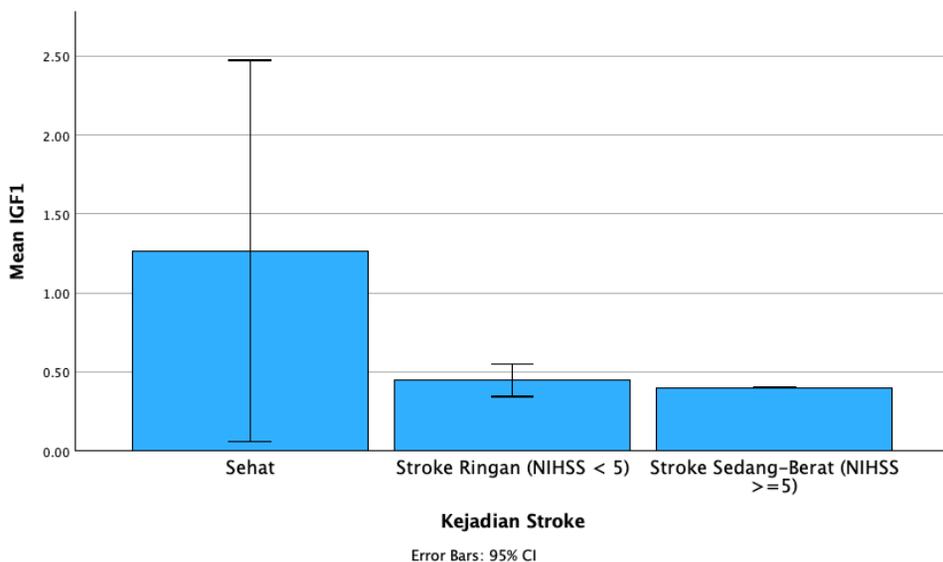
Nonparametric Correlations

Correlations

		NIHSS AWAL01	IGF1
HSS AWAL	Correlation Coefficient	1.000	.055
	Sig. (2-tailed)	.	.672
	N	61	61
F1	Correlation Coefficient	.055	1.000
	Sig. (2-tailed)	.672	.
	N	61	82

Explore

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
IGF1	82	100.0%	0	0.0%	82	100.0%
USIA	82	100.0%	0	0.0%	82	100.0%

Descriptives

			Statistic	Std. Error
IGF1	Mean		.63724592	.151990051
	95% Confidence Interval for Mean	Lower Bound	.33483339	
		Upper Bound	.93965844	
	5% Trimmed Mean		.41335076	
	Median		.40337436	
	Variance		1.894	
	Std. Deviation		1.376328449	
	Minimum		.353220	
	Maximum		12.292545	
	Range		11.939325	
	Interquartile Range		.014690	
	Skewness		7.836	.266
	Kurtosis		65.558	.526
USIA	Mean		57.54878049	1.039588614
	95% Confidence Interval for Mean	Lower Bound	55.48032524	
		Upper Bound	59.61723574	
	5% Trimmed Mean		57.74119241	
	Median		56.00000000	
	Variance		88.621	
	Std. Deviation		9.413875285	
	Minimum		34.000000	
	Maximum		80.000000	
	Range		46.000000	
	Interquartile Range		14.000000	
	Skewness		-.109	.266
	Kurtosis		-.013	.526

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
NIHSSAWAL01	61	74.4%	21	25.6%	82	100.0%
IGF1KASUS	61	74.4%	21	25.6%	82	100.0%

Descriptives

			Statistic	Std. Error
NIHSSAWAL01	Mean		6.95901639	.645105054
	95% Confidence Interval for Mean	Lower Bound	5.66861416	
		Upper Bound	8.24941863	
	5% Trimmed Mean		6.56921676	
	Median		5.00000000	
	Variance		25.386	
	Std. Deviation		5.038431537	
	Minimum		1.000000	
	Maximum		23.000000	
	Range		22.000000	
	Interquartile Range		7.000000	
	Skewness		1.106	.306
	Kurtosis		.817	.604
IGF1KASUS	Mean		.42079175	.020264969
	95% Confidence Interval for Mean	Lower Bound	.38025578	
		Upper Bound	.46132772	
	5% Trimmed Mean		.40114437	
	Median		.40159647	
	Variance		.025	
	Std. Deviation		.158274464	
	Minimum		.353220	
	Maximum		1.631637	
	Range		1.278417	
	Interquartile Range		.014631	
	Skewness		7.710	.306
	Kurtosis		59.942	.604

Lampiran 3. Rekomendasi izin 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 : 806/UN4.6.4.5.31/ PP36/ 2024

Tanggal: 2 Oktober 2024

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

No Protokol	UH24080616	No Sponsor	
Peneliti Utama	dr. Irwansyah Fitri Latif	Sponsor	
Judul Peneliti	ANALISIS HUBUNGAN KADAR INSULIN-LIKE GROWTH FACTOR-1 (IGF-1) SERUM TERHADAP SEVERITAS PASIEN STROKE ISKEMIK		
No Versi Protokol	2	Tanggal Versi	27 September 2024
No Versi PSP	2	Tanggal Versi	27 September 2024
Tempat Penelitian	RSUP Dr.Wahidin Sudirohusodo dan Jejaring Makassar		
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard Tanggal	Masa Berlaku 2 Oktober 2024 sampai 2 Oktober 2025	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Prof. dr. Muh Nasrum Massi,PhD,SpMK, Subsp. Bakt(K)	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	dr. Firdaus Hamid, PhD, SpMK(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)
- ... iran yang ditentukan