

DAFTAR PUSTAKA

- Åberg, N.D. et al. (2020) 'Acta Neuro Scandinavica - 2020 - berg - Circulating levels of vascular endothelial growth factor and post-stroke long-term.pdf', *Acta Neurol Scand.*, pp. 405–414.
- Adams, H.. et al. (1993) 'Classification of Subtype of Acute Ischemic Stroke', *Stroke*, 23(1), pp. 35–41.
- Akbar, M. et al. (2018) 'Clinical features of transient ischemic attack or ischemic stroke patients at high recurrence risk in Indonesia', *Neurology Asia*, 23(2), pp. 107–113.
- Amalia, L. et al. (2019) 'Hypoxia Inducible Factor (HIF) 1-A dan Vascular Endothelial Growth Factor (VEGF) pada Stroke Iskemik Fase Akut', *Jurnal Neuroanestesi Indonesia*, pp. 226–32. Available at: <https://doi.org/10.24244/jni.v8i3.218>.
- Angels Font, M. et al. (2010) 'Angiogenesis, Neurogenesis and Neuroplasticity in Ischemic Stroke', *Current Cardiology Reviews*, 6(3), pp. 238–244. Available at: <https://doi.org/10.2174/157340310791658802>.
- Aviv, R.I. et al. (2007) 'Alberta stroke program early CT scoring of CT perfusion in early stroke visualization and assessment', *American Journal of Neuroradiology*, 28(10), pp. 1975–1980. Available at: <https://doi.org/10.3174/ajnr.A0689>.
- Bernaudin, M. et al. (2002) 'Normobaric hypoxia induces tolerance to focal permanent cerebral ischemia in association with an increased expression of hypoxia-inducible factor-1 and its target genes, erythropoietin and VEGF, in the adult mouse brain', *Journal of Cerebral Blood Flow and Metabolism*, 22(4), pp. 393–403. Available at: <https://doi.org/10.1097/00004647-200204000-00003>.
- Bhasin, A. et al. (2019) 'Vascular Endothelial Growth Factor as Predictive Biomarker for Stroke Severity and Outcome; An Evaluation of a New Clinical Module in Acute Ischemic Stroke.', *Neurology India*, 67(5), pp. 1280–1285. Available at: <https://doi.org/10.4103/0028-3886.271241>.
- Bintang K.A. (2014) 'Hubungan Polimorfisme Gen Vascular Endothelial Growth Factor (VEGF) 936 C>T dan -2578 C>A dengan Kadar VEGF Serum dan Luaran Klinis Penderita Strok Iskemik Akut', pp. 1–191.
- Campbell, B.C.V. et al. (2019) 'Ischaemic stroke', *Nature Reviews Disease Primers*, 5(1). Available at: <https://doi.org/10.1038/s41572-019-0118-8>.
- Caplan, L.R. (2016) *Caplan's Stroke A Clinical Approach*. Fifth Edit. Cambridge University Press.
- Chen, B. et al. (2021) 'The role of vascular endothelial growth factor in ischemic stroke', *Pharmazie*, 76(4), pp. 127–131. Available at: <https://doi.org/10.1691/ph.2021.1315>.
- Chung, J.W. et al. (2014) 'Trial of ORG 10172 in acute stroke treatment (TOAST) classification and vascular territory of ischemic stroke lesions diagnosed by diffusion-weighted imaging', *Journal of the American*

- at:
<https://doi.org/10.1161/JAHA.114.001119>.
- Datta, A. et al. (2020) ‘Cell Death Pathways in Ischemic Stroke and Targeted Pharmacotherapy’, *Translational Stroke Research*, 11(6), pp. 1185–1202. Available at: <https://doi.org/10.1007/s12975-020-00806-z>.
- Demaerschalk, B.M. et al. (2006) ‘ASPECT scoring to estimate >1/3 middle cerebral artery territory infarction’, *Canadian Journal of Neurological Sciences*, 33(2), pp. 200–204. Available at: <https://doi.org/10.1017/s0317167100004972>.
- Divya et al. (2017) ‘Plasma Vascular Endothelial Growth Factor (VEGF) In Ischemic Stroke – A Comparative Study’, *Journal of Medical Science And clinical Research*, 05(03), pp. 19274–19281. Available at: <https://doi.org/10.18535/jmscr/v5i3.152>.
- Endres, M. et al. (2008) ‘Chapter 2 The ischemic cascade and mediators of ischemic injury’, *Handbook of Clinical Neurology*, 92, pp. 31–41. Available at: [https://doi.org/10.1016/S0072-9752\(08\)01902-7](https://doi.org/10.1016/S0072-9752(08)01902-7).
- Ferroni, P. et al. (2008) ‘In vivo platelet activation is responsible for enhanced vascular endothelial growth factor levels in hypertensive patients’, *Clinica Chimica Acta*, 388(1–2), pp. 33–37. Available at: <https://doi.org/10.1016/j.cca.2007.09.026>.
- Finlayson, O. et al. (2013) ‘Interobserver agreement of ASPECT score distribution for noncontrast CT, CT angiography, and CT perfusion in acute stroke’, *Stroke*, 44(1), pp. 234–236. Available at: <https://doi.org/10.1161/STROKEAHA.112.665208>.
- Geiseler, S.J. and Morland, C. (2018) ‘The janus face of VEGF in stroke’, *International Journal of Molecular Sciences*, 19(5), pp. 1–20. Available at: <https://doi.org/10.3390/ijms19051362>.
- Greenberg, D.A. and Jin, K. (2013) ‘Vascular endothelial growth factors (VEGFs) and stroke’, *Cellular and Molecular Life Sciences*, 70(10), pp. 1753–1761. Available at: <https://doi.org/10.1007/s00018-013-1282-8>.
- Harris, S. et al. (2018) ‘TOAST Subtypes of Ischemic Stroke and Its Risk Factors: A Hospital-Based Study at Cipto Mangunkusumo Hospital, Indonesia’, *Stroke Research and Treatment*, 2018. Available at: <https://doi.org/10.1155/2018/9589831>.
- Hsieh, F.I. et al. (2010) ‘Get with the guidelines-stroke performance indicators: Surveillance of Stroke Care in the Taiwan Stroke Registry: Get with the guidelines-stroke in Taiwan’, *Circulation*, 122(11), pp. 1116–1123. Available at: <https://doi.org/10.1161/CIRCULATIONAHA.110.936526>.
- Jung, S. et al. (2017) ‘Relevance of the cerebral collateral circulation in ischaemic stroke: time is brain, but collaterals set the pace’, *Swiss medical weekly*, 147(December), p. w14538. Available at: <https://doi.org/10.4414/smw.2017.14538>.
- Kajdaniuk, D. et al. (2011) ‘Vascular endothelial growth factor (VEGF) part 1 in physiology and pathophysiology’, 62(5), pp. 444–455.

- Kementerian Kesehatan (2019) 'Pedoman Nasional Pelayanan Kedokteran Tata Laksana Stroke', *Pedoman Nasional Pelayanan Kedokteran Tata Laksana Stroke*, 8(5), p. 55.
- Kementerian Kesehatan Republik Indonesia (2018) 'Laporan Nasional Riskesdas 2018', *Badan Penelitian dan Pengembangan Kesehatan*, p. 674. Available at: http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf.
- Kim, B. and Kim, J. (2014) 'Classification/ Ischemic Stroke Subtype Classification: An Asian Viewpoint-small vessel disease', *Journal of stroke*, 16(1), pp. 8–17. Available at: <http://synapse.koreamed.org/DOLx.php?id=10.5853/jos.2014.16.1.8>.
- Kim, O.J. et al. (2011) 'Association between VEGF polymorphisms and homocysteine levels in patients with ischemic stroke and silent brain infarction', *Stroke*, 42(9), pp. 2393–2402. Available at: <https://doi.org/10.1161/STROKEAHA.110.607739>.
- Kuriakose, D. and Xiao, Z. (2020) 'Pathophysiology and treatment of stroke: Present status and future perspectives', *International Journal of Molecular Sciences*, 21(20), pp. 1–24. Available at: <https://doi.org/10.3390/ijms21207609>.
- Kusuma, Y. et al. (2009) 'Burden of stroke in Indonesia', *International Journal of Stroke*, 4(5), pp. 379–380. Available at: <https://doi.org/10.1111/j.1747-4949.2009.00326.x>.
- Kwakkel, G. et al. (2015) 'Constraint-induced movement therapy after stroke', *The Lancet Neurology*, 14(2), pp. 224–234. Available at: [https://doi.org/10.1016/S1474-4422\(14\)70160-7](https://doi.org/10.1016/S1474-4422(14)70160-7).
- Lassalle, L. et al. (2016) 'ASPECTS (Alberta Stroke Program Early CT Score) Assessment of the Perfusion-Diffusion Mismatch', *Stroke*, 47(10), pp. 2553–2558. Available at: <https://doi.org/10.1161/STROKEAHA.116.013676>.
- Lee, S.C. et al. (2010) 'Serum VEGF levels in acute ischaemic strokes are correlated with long-term prognosis', *European Journal of Neurology*, 17(1), pp. 45–51. Available at: <https://doi.org/10.1111/j.1468-1331.2009.02731.x>.
- Lindsay, M.P. et al. (2019) 'World Stroke Organization (WSO): Global Stroke Fact Sheet 2019', *International Journal of Stroke*, 14(8), pp. 806–817. Available at: <https://doi.org/10.1177/1747493019881353>.
- Luo, J. et al. (2018) 'Endovascular treatment of intracranial atherosclerotic stenosis: Current debates and future prospects', *Frontiers in Neurology*, 9(AUG). Available at: <https://doi.org/10.3389/fneur.2018.00666>.
- Ma, Y. et al. (2012) 'Effects of vascular endothelial growth factor in ischemic stroke', *Journal of Neuroscience Research*, 90(10), pp. 1873–1882. Available at: <https://doi.org/10.1002/jnr.23088>.
- Marti, H.J.H. et al. (2000) 'Hypoxia-Induced Vascular Endothelial Growth Factor Expression Precedes Neovascularization after Cerebral

- Ischemia', *The American Journal of Pathology*, 156(3), pp. 965–976. Available at: [https://doi.org/10.1016/S0002-9440\(10\)64964-4](https://doi.org/10.1016/S0002-9440(10)64964-4).
- Matsu, R. et al. (2013) 'Clinical significance of plasma VEGF value in ischemic stroke - research for biomarkers in ischemic stroke (REBIOS) study', *BMC Neurology*, 13, pp. 2–9. Available at: <https://doi.org/10.1186/1471-2377-13-32>.
- Mecollari, V. et al. (2014) 'A perspective on the role of class iii semaphorin signaling in central nervous system trauma', *Frontiers in Cellular Neuroscience*, 8(October), pp. 1–17. Available at: <https://doi.org/10.3389/fncel.2014.00328>.
- Otilia, M. et al. (2011) 'VEGF expression in human brain tissue after acute ischemic stroke', *Romanian Journal of Morphology and Embryology*, 52(4), pp. 1283–1292.
- Palmer, B.F. and Clegg, D.J. (2014) 'Oxygen sensing and metabolic homeostasis', *Molecular and Cellular Endocrinology*, 397(1–2), pp. 51–58. Available at: <https://doi.org/10.1016/j.mce.2014.08.001>.
- Parmar, P. (2018) 'Stroke: Classification and diagnosis', *Clinical Pharmacist*, 10(1). Available at: <https://doi.org/10.1211/CP.2018.20204150>.
- Pop, N. et al. (2021) 'The Alberta Stroke Program Early CT score (ASPECTS): A predictor of mortality in acute ischemic stroke', *Experimental and Therapeutic Medicine*, 22(6), pp. 1–8. Available at: <https://doi.org/10.3892/etm.2021.10805>.
- Powers, W.J. et al. (2018) *2018 Guidelines for the Early Management of Patients With Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association, Stroke*. Available at: <https://doi.org/10.1161/STR.0000000000000158>.
- Prodjohardjono, A. et al. (2020) 'Higher level of acute serum VEGF and larger infarct volume are more frequently associated with post-stroke cognitive impairment', *PLoS ONE*, 15(10 October), pp. 1–16. Available at: <https://doi.org/10.1371/journal.pone.0239370>.
- Puspitasari, V. et al. (2015) 'Serum vascular endothelial growth factor as a predictor of clinical outcomes in anterior circulation ischemic stroke', *Medical Journal of Indonesia*, 24(2), pp. 109–114. Available at: <https://doi.org/10.13181/mji.v24i2.1196>.
- Ramiro, L. et al. (2018) 'Inflammatory molecules might become both biomarkers and therapeutic targets for stroke management', *Therapeutic Advances in Neurological Disorders*, 9(6), pp. 259–261. Available at: <https://doi.org/10.1177/https://doi.org/10.1177/1756285418770210>.
- Roy-O'Reilly, M. and McCullough, L.D. (2018) 'Age and sex are critical factors in ischemic stroke pathology', *Endocrinology*, 159(8), pp. 3120–3131. Available at: <https://doi.org/10.1210/en.2018-00465>.
- Sacco, R.L. et al. (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), pp. 2064–

2089. Available at: <https://doi.org/10.1161/STR.0b013e318296aeca>.
- Setyopranoto, I. *et al.* (2019) 'Prevalence of stroke and associated risk factors in sleman district of Yogyakarta Special Region, Indonesia', *Stroke Research and Treatment*, 2019. Available at: <https://doi.org/10.1155/2019/2642458>.
- Slevin, M. *et al.* (2001) 'Serial measurement of vascular endothelial growth factor and transforming growth factor-beta1 in serum of patients with acute ischemic stroke.', *Stroke; a journal of cerebral circulation*, 32(1), pp. 275–278. Available at: <https://doi.org/10.1161/01.STR.32.1.275-b>.
- Tian, Y. *et al.* (2023) 'Effect of VEGF on neurological impairment and prognosis of acute cerebral infarction patients: A retrospective case-control study', *Medicine (United States)*, 102(6). Available at: <https://doi.org/10.1097/MD.00000000000029835>.
- Tsai, W.C. *et al.* (2005) 'Plasma vascular endothelial growth factor as a marker for early vascular damage in hypertension', *Clinical Science*, 109(1), pp. 39–43. Available at: <https://doi.org/10.1042/CS20040307>.
- Virani, S.S. *et al.* (2020) *Heart disease and stroke statistics—2020 update a report from the American Heart Association, Circulation*. Available at: <https://doi.org/10.1161/CIR.0000000000000757>.
- Wick, A. *et al.* (2002) 'Neuroprotection by hypoxic preconditioning requires sequential activation of vascular endothelial growth factor receptor and Akt', *Journal of Neuroscience*, 22(15), pp. 6401–6407. Available at: <https://doi.org/10.1523/jneurosci.22-15-06401.2002>.
- Zechariah, A. *et al.* (2013) 'Hyperlipidemia attenuates vascular endothelial growth factor-induced angiogenesis, impairs cerebral blood flow, and disturbs stroke recovery via decreased pericyte coverage of brain endothelial cells', *Arteriosclerosis, Thrombosis, and Vascular Biology*, 33(7), pp. 1561–1567. Available at: <https://doi.org/10.1161/ATVBAHA.112.300749>.
- Zhang, Y. *et al.* (2020) 'Serum vascular endothelial growth factor as a biomarker for prognosis of minor ischemic stroke', *Clinical Neurology and Neurosurgery*, 196(23), p. 106060. Available at: <https://doi.org/10.1016/j.clineuro.2020.106060>.
- Zhang, Z.G. and Chopp, M. (2009) 'Neurorestorative therapies for stroke: underlying mechanisms and translation to the clinic', *The Lancet Neurology*, 8(5), pp. 491–500. Available at: [https://doi.org/10.1016/S1474-4422\(09\)70061-4](https://doi.org/10.1016/S1474-4422(09)70061-4).
- Zhou, Y. *et al.* (2021) 'The Role of the VEGF Family in Coronary Heart Disease', *Frontiers in Cardiovascular Medicine*, 8(August), pp. 1–16. Available at: <https://doi.org/10.3389/fcvm.2021.738325>.

LAMPIRAN

Lampiran 1 : Analisis data

Frequencies

Statistics												
	JK	Kat_Usia	HT	DM	Jantung	Kolesterol	Rokok	Kat_VEGF	Kat_ASPECTS	FR	TOAST_2	
N	Valid	37	37	37	37	37	37	37	37	37	37	
	Missing	0	0	0	0	0	0	0	0	0	0	

Frequency Table

JK					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	14	37.8	37.8	37.8
	Perempuan	23	62.2	62.2	100.0
	Total	37	100.0	100.0	

Kat_Usia					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25 tahun	1	2.7	2.7	2.7
	26-35 tahun	2	5.4	5.4	8.1
	36-45 tahun	5	13.5	13.5	21.6
	46-55 tahun	8	21.6	21.6	43.2
	56-65 tahun	14	37.8	37.8	81.1
	> 65 tahun	7	18.9	18.9	100.0
	Total	37	100.0	100.0	

HT					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ya	28	75.7	75.7	75.7
	Tidak	9	24.3	24.3	100.0
	Total	37	100.0	100.0	

DM					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ya	9	24.3	24.3	24.3
	Tidak	28	75.7	75.7	100.0
	Total	37	100.0	100.0	

Jantung

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ya	2	5.4	5.4	5.4
	Tidak	35	94.6	94.6	100.0
	Total	37	100.0	100.0	

Hiperlipidemia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ya	6	16.2	16.2	16.2
	Tidak	31	83.8	83.8	100.0
	Total	37	100.0	100.0	

Rokok

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ya	8	21.6	21.6	21.6
	Tidak	29	78.4	78.4	100.0
	Total	37	100.0	100.0	

Kat_VEGF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	> 245	11	29.7	29.7	29.7
	< 245	26	70.3	70.3	100.0
	Total	37	100.0	100.0	

Kat_ASPECTS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	≤ 7	11	29.7	29.7	29.7
	> 7	26	70.3	70.3	100.0
	Total	37	100.0	100.0	

FR					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DM	2	5.4	5.4	5.4
	DM, Kolesterol, Rokok	1	2.7	2.7	8.1
	HT	10	27.0	27.0	35.1
	HT, DM	5	13.5	13.5	48.6
	HT, DM, Kolesterol	1	2.7	2.7	51.4
	HT, Jantung	2	5.4	5.4	56.8
	HT, Kolesterol	4	10.8	10.8	67.6
	HT, Rokok	6	16.2	16.2	83.8
	Rokok	1	2.7	2.7	86.5
	Tidak ada	5	13.5	13.5	100.0
Total		37	100.0	100.0	

TOAST_2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SMALL-VESSEL OCCLUSION	28	75.7	75.7	75.7
	LARGE-ARTERY	6	16.2	16.2	91.9
	ATHEROSCLEROSIS				
	CARDIOEMBOLIC	2	5.4	5.4	97.3
	UNDETERMINED ETIOLOGY	1	2.7	2.7	100.0
Total		37	100.0	100.0	

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Usia	37	100.0%	0	0.0%	37	100.0%
ASPECTS	37	100.0%	0	0.0%	37	100.0%
VEGF	37	100.0%	0	0.0%	37	100.0%

Report

	Usia	ASPECTS	VEGF
Mean	55.6216	7.8378	204.8381
Std. Deviation	13.18322	1.77190	149.30562
Median	57.0000	9.0000	197.9165
Minimum	20.00	2.00	1.86
Maximum	77.00	9.00	608.81

Case Processing Summary

	Valid		Cases		Total	
	N	Percent	Missing		N	Percent
			N	Percent		
ASPECTS	37	100.0%	0	0.0%	37	100.0%
VEGF	37	100.0%	0	0.0%	37	100.0%
Usia	37	100.0%	0	0.0%	37	100.0%

Descriptives

		Statistic	Std. Error
ASPECTS	Mean	7.8378	.29130
	95% Confidence Interval for Mean	Lower Bound	7.2471
		Upper Bound	8.4286
	5% Trimmed Mean		8.0465
	Median		9.0000
	Variance		3.140
	Std. Deviation		1.77190
	Minimum		2.00
	Maximum		9.00
	Range		7.00
	Interquartile Range		2.00
	Skewness		-1.831
	Kurtosis		.759
VEGF	Mean	204.8381	24.54569
	95% Confidence Interval for Mean	Lower Bound	155.0572
		Upper Bound	254.6191
	5% Trimmed Mean		196.1119
	Median		197.9165
	Variance		22292.167
	Std. Deviation		149.30562
	Minimum		1.86
	Maximum		608.81
	Range		606.94
	Interquartile Range		245.38
	Skewness		.716
	Kurtosis		.154
Usia	Mean	55.6216	2.16731

95% Confidence Interval for	Lower Bound	51.2261	
Mean	Upper Bound	60.0171	
5% Trimmed Mean		56.2087	
Median		57.0000	
Variance		173.797	
Std. Deviation		13.18322	
Minimum		20.00	
Maximum		77.00	
Range		57.00	
Interquartile Range		18.00	
Skewness		-.592	.388
Kurtosis		.244	.759

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ASPECTS	.285	37	.000	.700	37	.000
VEGF	.117	37	.200*	.944	37	.064
Usia	.088	37	.200*	.969	37	.392

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

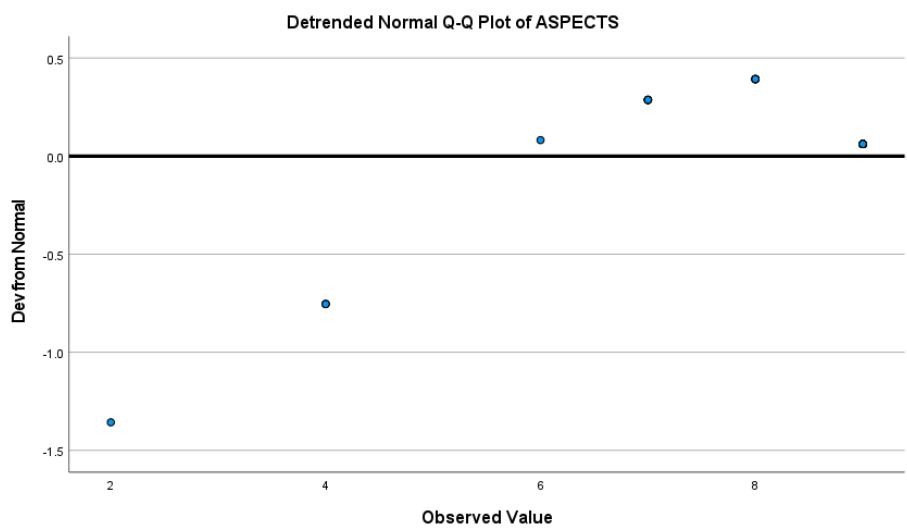
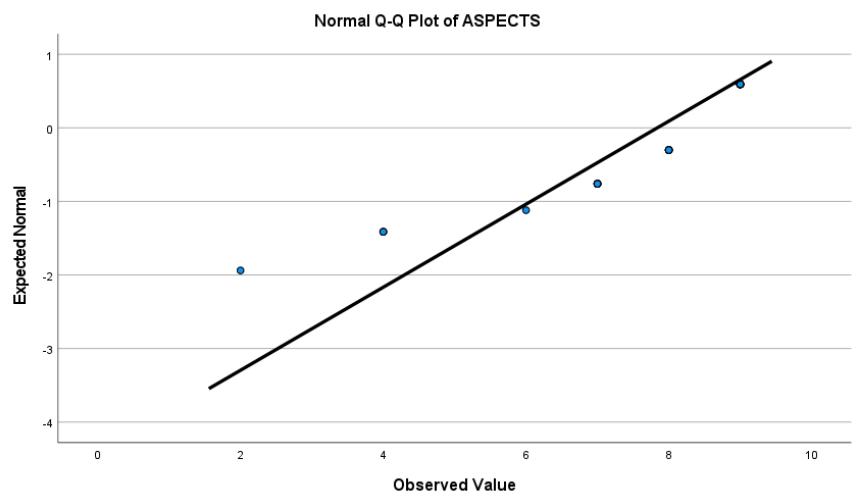
a. Lilliefors Significance Correction

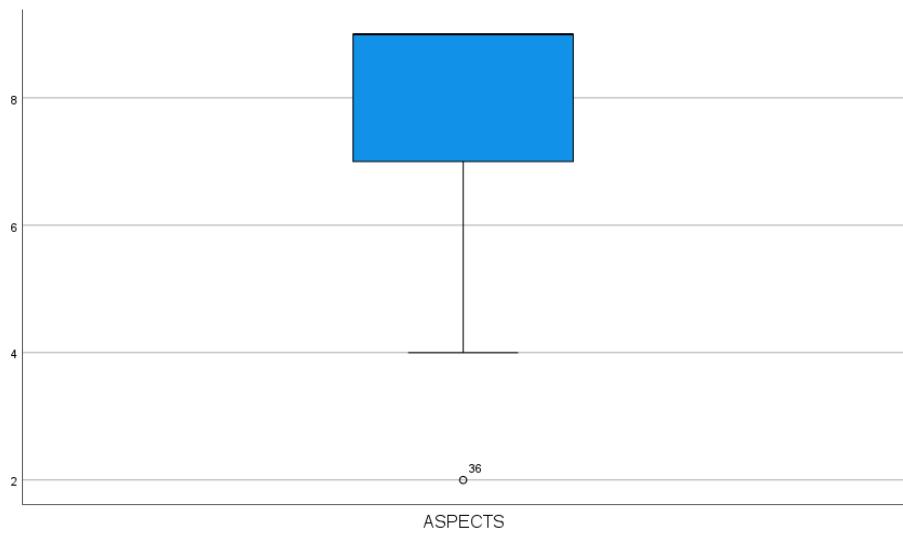
ASPECTS

ASPECTS Stem-and-Leaf Plot

Frequency	Stem &	Leaf
1.00	Extremes	(=<2.0)
3.00	4 .	000
.00	4 .	
.00	5 .	
.00	5 .	
1.00	6 .	0
.00	6 .	
6.00	7 .	000000
.00	7 .	
6.00	8 .	000000
.00	8 .	
20.00	9 .	00000000000000000000

Stem width: 1.00
 Each leaf: 1 case(s)



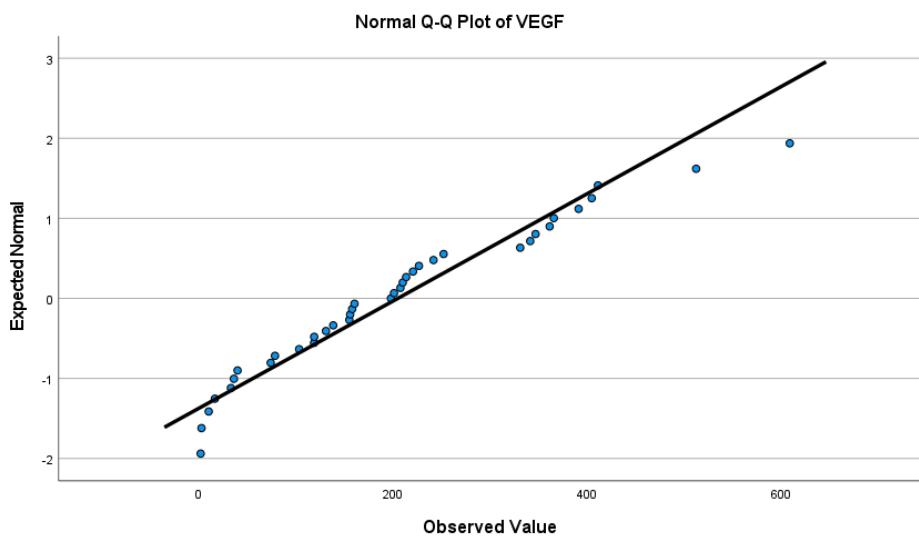


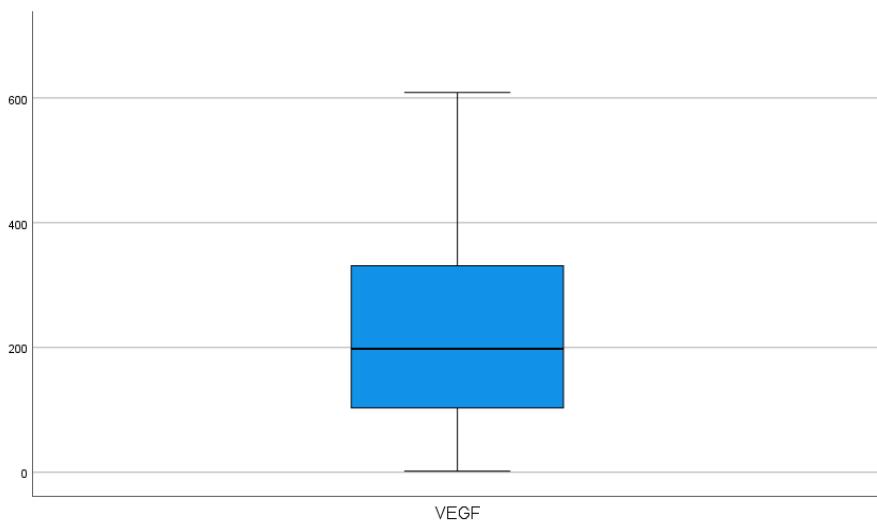
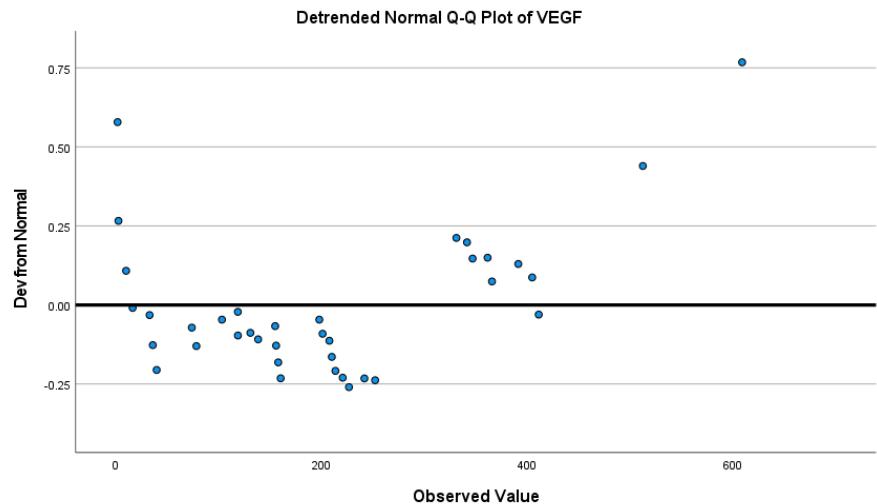
VEGF

VEGF Stem-and-Leaf Plot

Frequency	Stem	Leaf
9.00	0 .	001133377
10.00	1 .	0113355569
8.00	2 .	00112245
6.00	3 .	344669
2.00	4 .	01
1.00	5 .	1
1.00	6 .	0

Stem width: 100.00
Each leaf: 1 case(s)



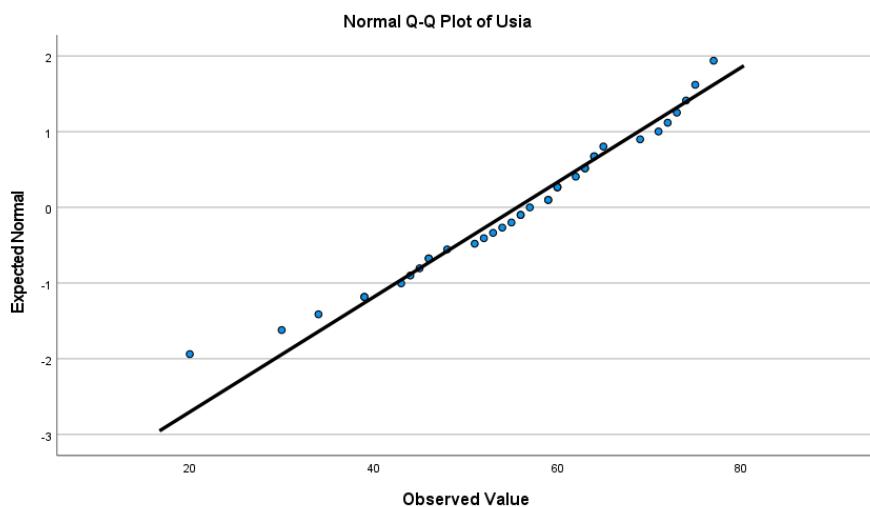


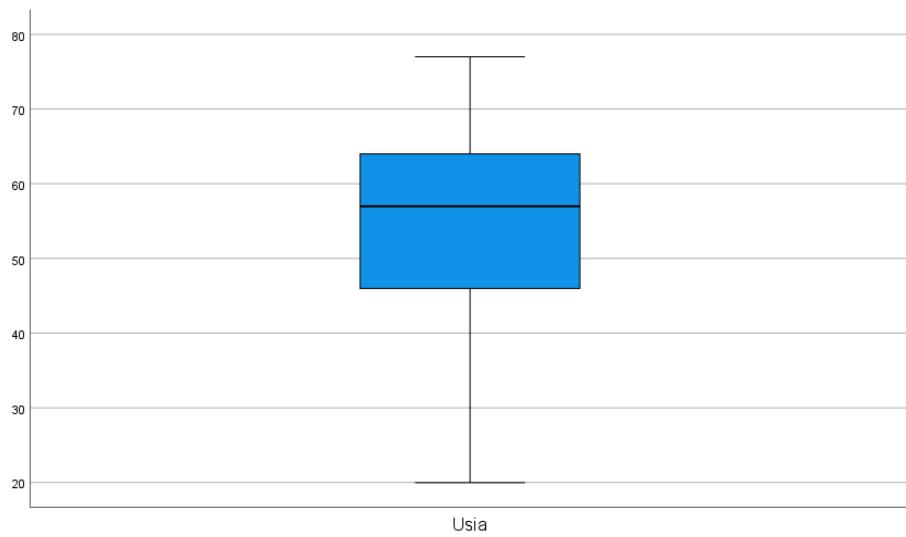
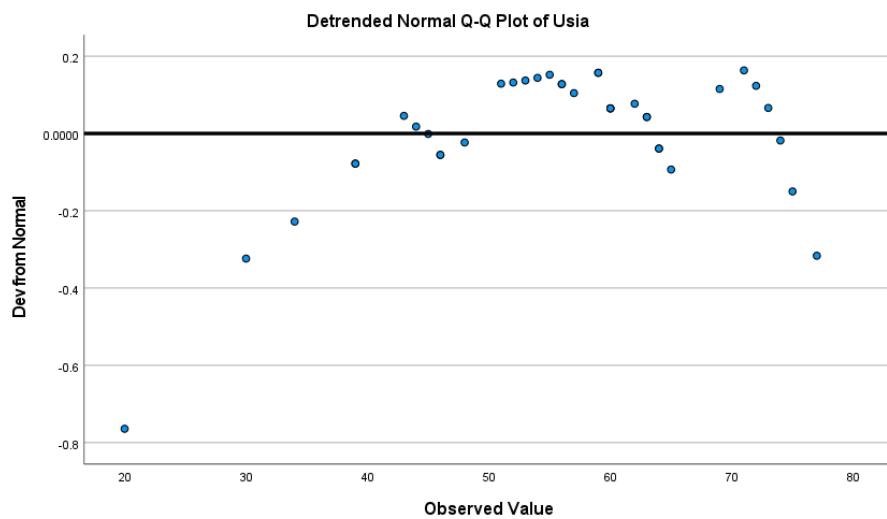
Usia

Usia Stem-and-Leaf Plot

Frequency	Stem	&	Leaf
1.00	2	.	0
.00	2	.	
2.00	3	.	04
2.00	3	.	99
2.00	4	.	34
4.00	4	.	5668
4.00	5	.	1234
6.00	5	.	566799
8.00	6	.	00023344
2.00	6	.	59
4.00	7	.	1234
2.00	7	.	57

Stem width: 10.00
Each leaf: 1 case(s)





Correlations

Correlations

		VEGF	Usia	ASPECTS
VEGF	Pearson Correlation	1	-.212	-.576**
	Sig. (2-tailed)		.209	.000
	N	37	37	37
Usia	Pearson Correlation	-.212	1	-.019
	Sig. (2-tailed)	.209		.910

	N	37	37	37
ASPECTS	Pearson Correlation	-.576**	-.019	1
	Sig. (2-tailed)	.000	.910	
	N	37	37	37

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

Nonparametric Correlations

Means

VEGF * Kat_ASPECTS

VEGF

Kat_ASPECTS	Mean	Std. Deviation	Median	Minimum	Maximum
<= 7	337.9072	165.31723	365.7284	1.86	608.81
> 7	148.5397	100.40553	146.7267	2.73	346.89
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * HT

VEGF

HT	Mean	Std. Deviation	Median	Minimum	Maximum
Ya	208.8271	165.68803	159.1701	1.86	608.81
Tidak	192.4279	86.21792	201.1010	33.01	341.41
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * DM

VEGF

DM	Mean	Std. Deviation	Median	Minimum	Maximum
Ya	255.9625	176.11864	226.7751	16.51	608.81
Tidak	188.4053	139.21624	159.1701	1.86	512.35
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * Jantung

VEGF

Jantung	Mean	Std. Deviation	Median	Minimum	Maximum
Ya	376.3732	21.08239	376.3732	361.47	391.28
Tidak	195.0361	147.51493	160.3652	1.86	608.81
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * Kolesterol

VEGF

Kolesterol	Mean	Std. Deviation	Median	Minimum	Maximum
Ya	222.8670	244.69041	152.6161	1.86	608.81
Tidak	201.3487	129.20569	197.9165	2.73	512.35
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * Rokok

VEGF

Rokok	Mean	Std. Deviation	Median	Minimum	Maximum
Ya	230.1122	165.66012	217.2427	2.73	512.35
Tidak	197.8660	146.85940	157.9751	1.86	608.81
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * JK

VEGF

JK	Mean	Std. Deviation	Median	Minimum	Maximum
Laki-laki	209.4336	148.94812	208.8927	2.73	512.35
Perempuan	202.0409	152.79671	157.9751	1.86	608.81
Total	204.8381	149.30562	197.9165	1.86	608.81

VEGF * Kat_Usia

VEGF

Kat_Usia	Mean	Std. Deviation	Median	Minimum	Maximum
17-25 tahun	201.1010	.	201.1010	201.10	201.10
26-35 tahun	310.6160	142.18623	310.6160	210.08	411.16
36-45 tahun	227.0643	225.20471	157.9751	16.51	608.81
46-55 tahun	222.5458	151.36946	209.2925	2.73	512.35
56-65 tahun	196.8828	128.60527	184.0377	36.12	404.80
> 65 tahun	154.9473	162.45630	130.9590	1.86	391.28
Total	204.8381	149.30562	197.9165	1.86	608.81

T-Test

Group Statistics		N	Mean	Std. Deviation	Std. Error Mean
Kat_ASPECTS					
VEGF	<= 7	11	337.9072	165.31723	49.84502
	> 7	26	148.5397	100.40553	19.69114

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means						95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
VEGF	Equal variances assumed	3.067	.089	4.297	35	.000	189.36746	44.06561	99.90952	278.82540
	Equal variances not assumed			3.533	13.236	.004	189.36746	53.59354	73.79504	304.93988

Independent Samples Effect Sizes

	Standardizer ^a	Point Estimate		95% Confidence Interval	
				Lower	Upper
VEGF	Cohen's d	122.51293	1.546	.745	2.329
	Hedges' correction	125.21875	1.512	.729	2.278
	Glass's delta	100.40553	1.886	.998	2.750

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

T-Test

Group Statistics					
	HT	N	Mean	Std. Deviation	Std. Error Mean
VEGF	Ya	28	208.8271	165.68803	31.31209
	Tidak	9	192.4279	86.21792	28.73931

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means						95% Confidence Interval		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
VEGF	Equal variances assumed	5.361	.027	.283	35	.779	16.39919	57.95592	-101.25758	134.05596
	Equal variances not assumed			.386	26.995	.703	16.39919	42.50171	-70.80786	103.60624

Independent Samples Effect Sizes

	Standardizer ^a	Point Estimate			95% Confidence Interval	
					Lower	Upper
VEGF	Cohen's d	151.25063		.108	-.644	.859
	Hedges' correction	154.59115		.106	-.630	.841
	Glass's delta	86.21792		.190	-.572	.941

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

T-Test

Group Statistics

	DM	N	Mean	Std. Deviation	Std. Error Mean
VEGF	Ya	9	255.9625	176.11864	58.70621
	Tidak	28	188.4053	139.21624	26.30940

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means						95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
VEGF	Equal variances assumed	.538	.468	1.188	35	.243	67.55726	56.88737	-47.93023	183.04476
	Equal variances not assumed			1.050	11.400	.315	67.55726	64.33198	-73.43280	208.54732

Independent Samples Effect Sizes

	Standardizer ^a	Point Estimate	95% Confidence Interval	
			Lower	Upper
VEGF	Cohen's d	148.46198	.455	-.307 1.210
	Hedges' correction	151.74091	.445	-.300 1.184
	Glass's delta	139.21624	.485	-.281 1.243

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

T-Test

Group Statistics

	Jantung	N	Mean	Std. Deviation	Std. Error Mean
VEGF	Ya	2	376.3732	21.08239	14.90750
	Tidak	35	195.0361	147.51493	24.93457

Independent Samples Test

	Levene's Test		t-test for Equality of Means						95% Confidence Interval		
	for Equality of		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
	Variances									Lower	Upper
VEGF	Equal variances assumed		2.180	.149	1.715	35	.095	181.33707	105.73619	-33.31880	395.99295
	Equal variances not assumed				6.242	11.723	.000	181.33707	29.05110	117.87415	244.80000

Independent Samples Effect Sizes

	Standardize	r ^a	95% Confidence Interval		
			Point Estimate	Lower	Upper
VEGF	Cohen's d	145.43596	1.247	-.216	2.693
	Hedges' correction	148.64806	1.220	-.211	2.635
	Glass's delta	147.51493	1.229	-.234	2.675

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

T-Test

Group Statistics

	Kolesterol	N	Mean	Std. Deviation	Std. Error Mean
VEGF	Ya	6	222.8670	244.69041	99.89444
	Tidak	31	201.3487	129.20569	23.20603

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means						95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
VEGF	Equal variances assumed	5.683	.023	.319	35	.752	21.51837	67.43836	-115.38878	158.42552
	Equal variances not assumed			.210	5.552	.841	21.51837	102.55447	-234.42028	277.45702

Independent Samples Effect Sizes

	Standardizer ^a	Point Estimate			95% Confidence Interval	
					Lower	Upper
VEGF	Cohen's d	151.20377		.142	-.733	1.016
	Hedges' correction	154.54326		.139	-.718	.994
	Glass's delta	129.20569		.167	-.710	1.040

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

T-Test

Group Statistics

	Rokok	N	Mean	Std. Deviation	Std. Error Mean
VEGF	Ya	8	230.1122	165.66012	58.56970
	Tidak	29	197.8660	146.85940	27.27111

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
VEGF	Equal variances assumed	.014	.906	.535	35	.596	32.24623	60.22528	-90.01760	154.51005
	Equal variances not assumed			.499	10.244	.628	32.24623	64.60745	-111.24501	175.73746

Independent Samples Effect Sizes

	Standardizer ^a	Point Estimate			95% Confidence Interval	
					Lower	Upper
VEGF	Cohen's d	150.80717		.214	-.572	.997
	Hedges' correction	154.13790		.209	-.560	.975
	Glass's delta	146.85940		.220	-.567	1.002

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

T-Test

Group Statistics

	JK	N	Mean	Std. Deviation	Std. Error Mean
VEGF	Laki-laki	14	209.4336	148.94812	39.80806
	Perempuan	23	202.0409	152.79671	31.86032

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
VEGF	Equal variances assumed	.103	.750	.144	35	.886	7.39276	51.31420	-96.78061	111.56612
	Equal variances not assumed			.145	28.161	.886	7.39276	50.98785	-97.02427	111.80979

Independent Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
VEGF	Cohen's d	151.37865	.049	-.616	.713
	Hedges' correction	154.72200	.048	-.603	.698
	Glass's delta	152.79671	.048	-.617	.712

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

ANOVA

VEGF

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	45680.046	5	9136.009	.374	.862
Within Groups	756837.968	31	24414.128		
Total	802518.014	36			

Kat_ASPECTS * TOAST

		TOAST					Total	
		SMALL-VESSEL OCCLUSION		LARGE-ARTERY ATHEROSCLER OSIS		UNDERTERMINED CARDIOEMBOLIC ETIOLOGY		
Kat_ASPECTS	<= 7	Count	3	6	2	0	11	
		% within Kat_ASPECTS	27.3%	54.5%	18.2%	0.0%	100.0%	
	> 7	Count	25	0	0	1	26	
		% within Kat_ASPECTS	96.2%	0.0%	0.0%	3.8%	100.0%	
Total	Count	28	6	2	1	37		
	% within Kat_ASPECTS	75.7%	16.2%	5.4%	2.7%	100.0%		

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	24.178 ^a	3	.000
Likelihood Ratio	25.965	3	.000
Linear-by-Linear Association	9.511	1	.002
N of Valid Cases	37		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .30.

Kat_VEGF * TOAST

		TOAST_2			Total	
		SMALL-VESSEL OCCLUSION	LARGE-ARTERY ATHEROSCLER OSIS	CARDIOEMBOLIC	UNDETERMINED ETIOLOGY	
Kat_VEGF > 245	Count	6	3	2	0	11
	% within Kat_VEGF	54.5%	27.3%	18.2%	0.0%	100.0%
< 245	Count	22	3	0	1	26
	% within Kat_VEGF	84.6%	11.5%	0.0%	3.8%	100.0%
Total	Count	28	6	2	1	37
	% within Kat_VEGF	75.7%	16.2%	5.4%	2.7%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance
			(2-sided)
Pearson Chi-Square	7.254 ^a	3	.064
Likelihood Ratio	7.619	3	.055
Linear-by-Linear Association	2.484	1	.115
N of Valid Cases	37		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .30.

Chi-Square Tests

	Value	df	Asymptotic
			Significance (2-sided)
Pearson Chi-Square	12.410 ^a	3	.006
Likelihood Ratio	15.885	3	.001
Linear-by-Linear Association	3.447	1	.063
N of Valid Cases	37		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .46.

ROC curve

Variable	VEGF
Classification variable	ASPECTS
Sample size	37
Positive group ^a	11 (29.73%)

Negative group ^b	26 (70.27%)
-----------------------------	-------------

^a ASPECTS = 1

^b ASPECTS = 2

Disease prevalence (%)	unknown
------------------------	---------

Area under the ROC curve (AUC)

Area under the ROC curve (AUC)	0.846
Standard Error ^a	0.0898
95% Confidence interval ^b	0.690 to 0.943
95% Bootstrap CI ^c	0.551 to 0.962
z statistic	3.854
Significance level P (Area=0.5)	0.0001

^a Hanley & McNeil, 1982

^b Binomial exact

^c BC_a bootstrap confidence interval (1000 iterations; random number seed: 978).

Youden index

Youden index J	0.6399
Associated criterion	>201.1
Sensitivity	90.91
Specificity	73.08

Summary Table

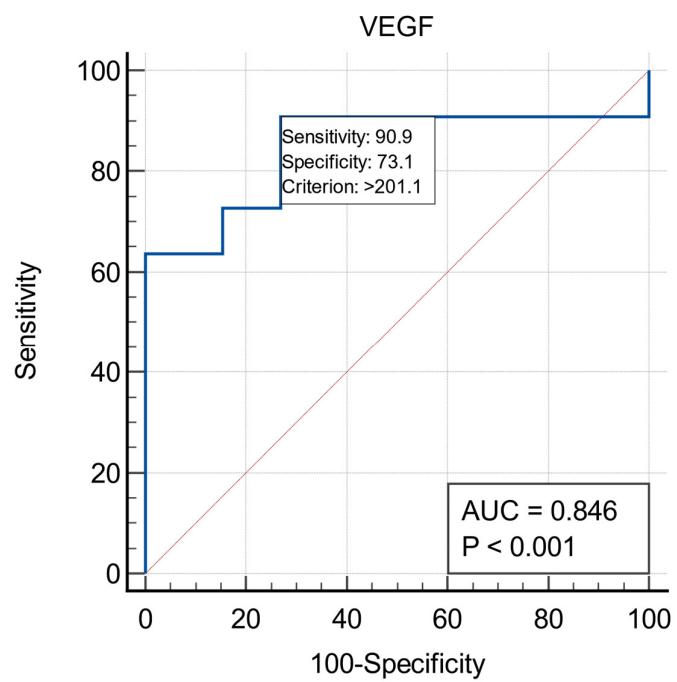
Estimated specificity at fixed sensitivity			
Sensitivity	Specificity	95% CI ^a	Criterion
80.00	73.08	46.15 to 88.46	>208.184
90.00	73.08	50.00 to 88.46	>201.761
95.00	0.00	50.00 to 50.00	>1.86
97.50	0.00	50.00 to 50.00	>1.86
99.00	0.00	50.00 to 50.00	>1.86
Estimated sensitivity at fixed specificity			
Specificity	Sensitivity	95% CI ^a	Criterion
80.00	72.73	27.27 to 100.00	>219.252
90.00	63.64	27.27 to 90.91	>283.744
95.00	63.64	27.27 to 90.91	>338.323
97.50	63.64	0.00 to 0.00	>343.328
99.00	63.64	0.00 to 0.00	>345.4652

^a BC_a bootstrap confidence interval (1000 iterations; random number seed: 978).

Criterion values and coordinates of the ROC curve [Show]

Criterion	Sensitivity	95% CI	Specificity	95% CI	+LR	95% CI	-LR	95% CI
≥1.86	100.00	71.5 - 100.0	0.00	0.0 - 13.2	1.00	1.00 - 1.00		
>1.86	90.91	58.7 - 99.8	0.00	0.0 - 13.2	0.91	0.75 - 1.10		
>2.73	90.91	58.7 - 99.8	3.85	0.10 - 19.6	0.95	0.77 - 1.16	2.36	0.16 - 34.50
>10.14	90.91	58.7 - 99.8	7.69	0.9 - 25.1	0.98	0.79 - 1.22	1.18	0.12 - 11.72
>16.51	90.91	58.7 - 99.8	11.54	2.4 - 30.2	1.03	0.81 - 1.30	0.79	0.092 - 6.77

>33.01	90.91	58.7 - 99.8	15.38	4.4 - 34.9	1.07	0.84 - 1.38	0.59	0.074 - 4.71
>36.12	90.91	58.7 - 99.8	19.23	6.6 - 39.4	1.13	0.86 - 1.47	0.47	0.062 - 3.59
>39.86	90.91	58.7 - 99.8	23.08	9.0 - 43.6	1.18	0.89 - 1.57	0.39	0.054 - 2.90
>74.02	90.91	58.7 - 99.8	26.92	11.6 - 47.8	1.24	0.92 - 1.68	0.34	0.047 - 2.43
>78.46	90.91	58.7 - 99.8	30.77	14.3 - 51.8	1.31	0.96 - 1.80	0.30	0.042 - 2.09
>103.32	90.91	58.7 - 99.8	34.62	17.2 - 55.7	1.39	0.99 - 1.95	0.26	0.038 - 1.83
>118.75	90.91	58.7 - 99.8	38.46	20.2 - 59.4	1.48	1.03 - 2.11	0.24	0.034 - 1.63
>118.83	90.91	58.7 - 99.8	42.31	23.4 - 63.1	1.58	1.08 - 2.30	0.21	0.031 - 1.47
>130.96	90.91	58.7 - 99.8	46.15	26.6 - 66.6	1.69	1.13 - 2.52	0.20	0.029 - 1.34
>138.45	90.91	58.7 - 99.8	50.00	29.9 - 70.1	1.82	1.19 - 2.79	0.18	0.027 - 1.23
>155.01	90.91	58.7 - 99.8	53.85	33.4 - 73.4	1.97	1.25 - 3.11	0.17	0.025 - 1.13
>155.91	90.91	58.7 - 99.8	57.69	36.9 - 76.6	2.15	1.32 - 3.49	0.16	0.024 - 1.05
>157.98	90.91	58.7 - 99.8	61.54	40.6 - 79.8	2.36	1.40 - 3.98	0.15	0.022 - 0.98
>160.37	90.91	58.7 - 99.8	65.38	44.3 - 82.8	2.63	1.50 - 4.60	0.14	0.021 - 0.92
>197.92	90.91	58.7 - 99.8	69.23	48.2 - 85.7	2.95	1.61 - 5.42	0.13	0.020 - 0.87
>201.1	90.91	58.7 - 99.8	73.08	52.2 - 88.4	3.38	1.74 - 6.53	0.12	0.019 - 0.82
>207.71	81.82	48.2 - 97.7	73.08	52.2 - 88.4	3.04	1.52 - 6.07	0.25	0.070 - 0.89
>210.08	72.73	39.0 - 94.0	73.08	52.2 - 88.4	2.70	1.30 - 5.60	0.37	0.14 - 1.01
>213.58	72.73	39.0 - 94.0	76.92	56.4 - 91.0	3.15	1.43 - 6.94	0.35	0.13 - 0.95
>220.67	72.73	39.0 - 94.0	80.77	60.6 - 93.4	3.78	1.59 - 9.00	0.34	0.13 - 0.90
>226.78	72.73	39.0 - 94.0	84.62	65.1 - 95.6	4.73	1.79 - 12.49	0.32	0.12 - 0.86
>241.75	63.64	30.8 - 89.1	84.62	65.1 - 95.6	4.14	1.51 - 11.31	0.43	0.19 - 0.96
>252.16	63.64	30.8 - 89.1	88.46	69.8 - 97.6	5.52	1.74 - 17.49	0.41	0.19 - 0.91
>331.12	63.64	30.8 - 89.1	92.31	74.9 - 99.1	8.27	2.03 - 33.70	0.39	0.18 - 0.87
>341.41	63.64	30.8 - 89.1	96.15	80.4 - 99.9	16.55	2.30 - 119.02	0.38	0.17 - 0.83
>346.89	63.64	30.8 - 89.1	100.00	86.8 - 100.0			0.36	0.17 - 0.79
>361.47	54.55	23.4 - 83.3	100.00	86.8 - 100.0			0.45	0.24 - 0.87
>365.73	45.45	16.7 - 76.6	100.00	86.8 - 100.0			0.55	0.32 - 0.94
>391.28	36.36	10.9 - 69.2	100.00	86.8 - 100.0			0.64	0.41 - 0.99
>404.8	27.27	6.0 - 61.0	100.00	86.8 - 100.0			0.73	0.51 - 1.04
>411.16	18.18	2.3 - 51.8	100.00	86.8 - 100.0			0.82	0.62 - 1.08
>512.35	9.09	0.2 - 41.3	100.00	86.8 - 100.0			0.91	0.75 - 1.10
>608.81	0.00	0.0 - 28.5	100.00	86.8 - 100.0			1.00	1.00 - 1.00



Lampiran 2 : Persetujuan Etik



REKOMENDASI PERSETUJUAN ETIK

Nomor : 221/UN4.6.4.5.31/PP36/2023

Tanggal: 10 April 2023

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

No Protokol	UH23030194	No Sponsor Protokol	
Peneliti Utama	dr. Faisal Fakhri	Sponsor	
Judul Peneliti	HUBUNGAN KADAR VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF) SERUM DENGAN LUAS INFARK DAN TIPE STROKE ISKEMIK		
No Versi Protokol	2	Tanggal Versi	5 April 2023
No Versi PSP	2	Tanggal Versi	5 April 2023
Tempat Penelitian	RSUP Dr. Wahidin Sudirohusodo dan RS Jejaring di Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku 10 April 2023 sampai 10 April 2024	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)		
Sekretaris KEP Universitas Hasanuddin	Nama dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)		

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 protokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

Lampiran 3 : Persetujuan setelah penjelasan



FORMULIR PERSETUJUAN SETELAH PENJELASAN (PSP) (INFORMED CONSENT)

Assalamualaikum Warahmatullahi Wabarakatuh. Selamat pagi Bapak/Ibu. Perkenalkan saya dr. Faisal Fakhri M. dari Departemen Ilmu Penyakit Saraf Fakultas Kedokteran UNHAS, yang berencana akan melakukan penelitian untuk mengetahui hubungan kadar Vascular Endothelial Growth Factor (VEGF) dengan luas area penyumbatan (infark) di otak dan tipe stroke penyumbatan yang dialami Bapak/Ibu, kami lakukan dengan cara pengambilan sampel darah dan menilai luas area penyumbatan dengan Alberta Stroke Program Early CT Score (ASPECTS) dan tipe stroke berdasarkan klasifikasi Trial of ORG 10172 in Acute Stroke Treatment (TOAST). Pengambilan sampel darah dan CT Scan kepala ini tidak dipungut biaya, karena biaya ditanggung oleh peneliti.

Terlebih dahulu, Kami akan mencatat identitas Bapak/Ibu (nama, alamat, umur, jenis kelamin, pekerjaan, riwayat penyakit sebelumnya), lalu melakukan tanya jawab mengenai penyakit, kemudian melakukan pemeriksaan fisik, dan pemeriksaan pencitraan kepala untuk menentukan suatu stroke penyumbatan akut. Langkah selanjutnya kami akan melakukan pengambilan sampel darah untuk mengukur kadar Vascular Endothelial Growth Factor (VEGF) di dalam darah. Pengambilan sampel darah dilakukan satu kali di hari ke-3 sampai hari ke-14 setelah kejadian stroke penyumbatan. Jika kadar VEGF tinggi maka daerah penyumbatan di otak juga luas.

Penghitungan luas area penyumbatan di otak dengan Alberta Stroke Program Early CT Score (ASPECTS) dimana terdapat 10 area otak yang disuplai oleh pembuluh darah otak tengah, dimana skor akan dikurangi 1 poin untuk setiap area yang, setelah itu menentukan tipe stroke berdasarkan klasifikasi Trial of ORG 10172 in Acute Stroke Treatment (TOAST) yang terdiri atas 5 subtipe berdasarkan penyebabnya, penilaian ASPECTS dan klasifikasi TOAST dilakukan antara hari ke-3 sampai hari ke-14 setelah kejadian stroke, bersamaan dengan pengambilan darah. Pengambilan sampel darah dilakukan sebanyak 1 kali, sebanyak 1 sendok teh yaitu antara hari ke-3 sampai hari ke-14 setelah pasien terkena stroke yang dilakukan pada area lipatan pada bagian siku. Prosedur pengambilan darah dilakukan selama kurang lebih 3 menit, dilakukan oleh tenaga kesehatan yang kompeten dibidangnya dan diharapkan memberikan efek samping minimal seperti rasa tidak nyaman/nyeri ditempat pengambilan darah.

Pemeriksaan ini tidak akan memungut biaya karena biaya akan ditanggung oleh peneliti. Setelah seluruh prosedur dilakukan yaitu setelah pengambilan darah dan penilaian ASPECTS dan TOAST antara onset hari ke 3 sampai hari ke-14 Bapak/Ibu akan diberikan souvenir berupa satu buah payung.

Kami akan mencatat dan mengolah semua data yang sudah kami peroleh, hasil dari pengolahan data akan kami tampilkan di jurnal ilmiah tanpa membuka informasi data pribadi subyek penelitian. Kerahasiaan data dijamin dan hanya diketahui oleh peneliti dan komisi etik. Hasil penelitian ini diharapkan dapat menjadi pengetahuan baru untuk meningkatkan mutu dan kualitas pengobatan stroke penyumbatan, sehingga didapatkan angka kecacatan yang rendah, kualitas hidup yang lebih baik, dan fungsi kognitif yang lebih baik pada penderita stroke penyumbatan.

Keikutsertaan Bapak/Ibu dalam penelitian ini bersifat sukarela tanpa paksaan, karena itu bila Bapak/Ibu menolak ikut atau berhenti ikut pada penelitian ini tidak akan mengurangi atau kehilangan hak untuk mendapatkan pelayanan kesehatan standar rutin sesuai dengan penyakit yang Bapak/Ibu derita serta mendapat obat yang diperlukan. Bila masih ada hal-hal yang ingin bapak/Ibu ketahui, atau masih ada hal-hal yang belum jelas, maka Bapak/Ibu bisa bertanya dan meminta penjelasan kami di Poliklinik Saraf Departemen Ilmu penyakit Saraf RSUP dr. Wahidin Sudirohusodo Makassar, atau secara langsung melalui No. HP peneliti : 081342559222.

Demikian penjelasan saya, jika Bapak/Ibu bersedia untuk berpartisipasi, diharapkan menandatangani surat persetujuan mengikuti penelitian. Atas kesediaan dan kerjasamanya diucapkan terima kasih.

Identitas Peneliti :

Nama : dr. Faisal Fakhri M.
Alamat : Aspol Tallo Lama Blok E.5, Makassar
Telepon : 081342559222

Lampiran 4 : Informed consent



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



FORMULIR PERSETUJUAN SETELAH PENJELASAN

Saya yang bertandatangan di bawah ini :

Nama :
Umur :
Masa Kerja :
Satuan :
Alamat :

setelah mendengar/membaca dan mengerti penjelasan yang diberikan mengenai tujuan, manfaat, dan apa yang akan dilakukan pada penelitian ini, menyatakan setuju untuk ikut dalam penelitian ini secara sukarela tanpa paksaan.

Saya tahu bahwa keikutsertaan saya ini bersifat sukarela tanpa paksaan, sehingga saya bisa menolak ikut atau mengundurkan diri dari penelitian ini. Saya berhak bertanya atau meminta penjelasan pada peneliti bila masih ada hal yang belum jelas atau masih ada hal yang ingin saya ketahui tentang penelitian ini.

Saya juga mengerti bahwa semua biaya yang dikeluarkan sehubungan dengan penelitian ini, akan ditanggung oleh peneliti. Saya percaya bahwa keamanan dan kerahasiaan data penelitian akan terjamin dan saya dengan ini menyetujui semua data saya yang dihasilkan pada penelitian ini untuk disajikan dalam bentuk lisan maupun tulisan.

Dengan membubuhkan tandatangan saya di bawah ini, saya menegaskan keikutsertaan saya secara sukarela dalam studi penelitian ini.

Nama

Tanda tangan

Tgl/Bln/Thn

Responden

/Wali

Saksi

(Tanda Tangan Saksi diperlukan hanya jika Partisipan tidak dapat memberikan consent/persetujuan sehingga menggunakan wali yang sah secara hukum, yaitu untuk partisipan berikut:

1. Berusia di bawah 18 tahun
2. Usia lanjut
3. Gangguan mental
4. Pasien tidak sadar
5. Dan lain-lain kondisi yang tidak memungkinkan memberikan persetujuan

Penanggung jawab penelitian :	Penanggung jawab Medis :
Nama : dr. Faisal Fakhri M. Alamat : Aspol Tallo Lama Blok E.5, Makassar Telepon : 081342559222	Nama: dr. Ashari Bahar, M.Kes, Sp.S(K), FINS, FINA. Alamat : Jln. Ade Irma Nasution IV No.23, Makassar Telepon : 081340472233

Lampiran 5 : Formlir permintaan pemeriksaan laboratorium

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI

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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



FORMULIR PERMINTAAN PEMERIKSAAN LABORATORIUM

Hubungan Kadar *Vascular Endothelial Growth Factor (VEGF)* serum dengan *Alberta Stroke Program Early CT Score (ASPECTS)* dan Tipe Stroke Iskemik Pada Pasien Stroke Iskemik Akut Teritori *Middle Cerebral Artery (MCA)*

I. IDENTITAS PASIEN

1. Nama inisial :
2. Rumah Sakit :
3. Rekam Medis :
4. Jenis kelamin :
5. Tanggal lahir :
6. Tanggal pemeriksaan :
7. Pekerjaan :
8. Pendidikan :
9. Alamat :
10. Suku bangsa :
11. No. HP :

II. DATA PENYAKIT

1. Onset :
2. Merokok :
3. Durasi :
3. Hipertensi :
- Pengobatan :
4. Diabetes Mellitus:.....
- Pengobatan :
5. Hipercolesterolemia:.....
- Pengobatan :
6. Riwayat penyakit jantung :
- Pengobatan :
7. Tanda vital :
- a. TD :
- b. Nadi :
- c. Suhu :

- d. Pernapasan :.....
e. GCS :.....

III. DATA PEMERIKSAAN PENUNJANG

1. Kadar VEGF :.....
2. Gula darah sewaktu :.....
3. LDL :.....
4. Kolesterol total :.....
5. Triglicerida :.....
6. CT Scan kepala :.....
7. Skor ASPECT :.....
8. Klasifikasi TOAST :.....

NO	Nama	JK	Umur	RS	TD	HT	DM	Jantung	Kolesterol	Rokok	ASPECTS	Kadar VEGF	TOAST
1	AS	P	53	RSWS	110/70	YA	TIDAK	TIDAK	TIDAK	TIDAK	4	241,7462	LVD
2	SR	P	77	RSLB	180/100	YA	TIDAK	TIDAK	YA	TIDAK	7	1,8638	SVD
3	MR	L	54	RSLB	211/140	YA	TIDAK	TIDAK	TIDAK	YA	9	2,7289	SVD
4	MMB	P	45	HAJI	182/86	YA	YA	TIDAK	TIDAK	TIDAK	9	16,5108	SVD
5	MDG	P	72	HAJI	140/80	YA	TIDAK	TIDAK	YA	TIDAK	9	10,142	SVD
6	HA	P	46	RSWS	188/114	YA	TIDAK	TIDAK	TIDAK	TIDAK	9	155,0054	SVD
7	RO	P	69	RSWS	110/80	TIDAK	TIDAK	TIDAK	TIDAK	TIDAK	9	33,0069	SVD
8	RA	P	43	RSWS	180/110	YA	YA	TIDAK	YA	TIDAK	4	608,8075	LVD
9	SO	P	55	HAJI	130/80	YA	TIDAK	TIDAK	TIDAK	TIDAK	9	118,8331	SVD
10	PK	L	64	RSWS	169/76	YA	TIDAK	TIDAK	TIDAK	YA	4	207,7102	LVD
11	SN	L	56	RSLB	200/110	YA	TIDAK	TIDAK	TIDAK	YA	8	160,3652	SVD
12	DK	P	75	RSWS	130/86	YA	TIDAK	YA	TIDAK	TIDAK	7	361,4657	CE
13	AR	P	62	RSLB	120/70	YA	TIDAK	TIDAK	TIDAK	TIDAK	7	365,7284	SVD
14	FL	L	30	RSWS	140/100	YA	TIDAK	TIDAK	YA	TIDAK	7	411,1568	LVD
15	TA	P	71	RSWS	146/90	YA	TIDAK	YA	TIDAK	TIDAK	2	391,2807	CE
16	NU	L	59	RSWS	161/86	YA	TIDAK	TIDAK	YA	TIDAK	8	78,457	SVD
17	RI	P	46	IBNU SINA	190/90	TIDAK	TIDAK	TIDAK	TIDAK	TIDAK	9	197,9165	SVD
18	NUR	P	51	PELAMONIA	170/100	YA	YA	TIDAK	TIDAK	TIDAK	9	331,122	SVD
19	NI	L	48	AKADEMIS	160/110	YA	TIDAK	TIDAK	TIDAK	YA	6	512,3456	LVD
20	SU	P	60	HAJI	170/90	YA	YA	TIDAK	TIDAK	TIDAK	9	103,3156	SVD
21	JO	P	63	HAJI	190/80	YA	TIDAK	TIDAK	TIDAK	TIDAK	9	36,1211	SVD
22	M	P	59	FAISAL	180/90	YA	YA	TIDAK	TIDAK	TIDAK	9	346,8929	SVD
23	MD	L	60	AKADEMIS	180/100	YA	TIDAK	TIDAK	TIDAK	YA	7	404,7987	SVD
24	IH	L	34	RSWS	130/80	TIDAK	YA	TIDAK	TIDAK	TIDAK	7	210,0751	LVD
25	HA	P	65	RSLB	130/90	TIDAK	YA	TIDAK	TIDAK	TIDAK	8	341,4147	SVD
26	RD	P	60	RSWS	180/100	YA	YA	TIDAK	TIDAK	TIDAK	9	118,7492	SVD
27	HT	L	57	RSWS	180/100	TIDAK	TIDAK	TIDAK	TIDAK	YA	9	252,1552	SVD
28	SY	L	74	PELAMONIA	130/70	TIDAK	TIDAK	TIDAK	TIDAK	TIDAK	9	130,959	SVD
29	AMH	L	64	IBNU SINA	200/90	TIDAK	YA	TIDAK	YA	YA	9	226,7751	SVD
30	MA	P	39	IBNU SINA	150/80	YA	TIDAK	TIDAK	TIDAK	TIDAK	8	213,5804	SVD
31	L	P	73	RSWS	150/90	YA	TIDAK	TIDAK	TIDAK	TIDAK	9	155,9131	SVD
32	SS	L	56	RSWS	130/80	YA	TIDAK	TIDAK	TIDAK	YA	9	74,0187	SVD

33	N	L	63	RSWS	160/90	YA	TIDAK	TIDAK	TIDAK	TIDAK	9	39,8569	SVD
34	MAR	P	39	RSWS	130/80	TIDAK	TIDAK	TIDAK	TIDAK	TIDAK	9	138,4479	SVD
35	DA	P	20	HAJI	120/80	TIDAK	TIDAK	TIDAK	TIDAK	TIDAK	8	201,101	UE
36	RT	P	44	RSLB	140/70	YA	TIDAK	TIDAK	TIDAK	TIDAK	9	157,9751	SVD
37	Z	L	52	RSLB	140/90	YA	TIDAK	TIDAK	TIDAK	TIDAK	8	220,6684	SVD

