

DAFTAR PUSTAKA

1. Lv B, Yuan J, Ding H, Wan B, Jiang Q, Luo Y, et al. Relationship between Endplate Defects , Modic Change , Disc Degeneration , and Facet Joint Degeneration in Patients with Low Back Pain. 2019;2019.
2. Chen D, Shen J, Zhao W, Wang T, Han L, Hamilton JL, et al. Osteoarthritis : toward a comprehensive understanding of pathological mechanism. Nature Publishing Group. 2020;(September 2016).
3. Gellhorn AC. Osteoarthritis of the spine : the facet joints. 2014;9(4):216–24.
4. Zhou X, Liu Y, Zhou S, Fu X xing, Yu X long, Fu C lin, et al. The correlation between radiographic and pathologic grading of lumbar facet joint degeneration. BMC Med Imaging. 2016;1–8.
5. Kalichman L, Li L, Kim D, Guermazi A, Donnell CJO, Hoffmann U, et al. based population. 2011;33(23):2560–5.
6. Little JW, Grieve T, Cantu J, Bogar WB, Heiser R, Miley H, et al. assessed by magnetic resonance imaging. 2020;43(1):43–9.
7. Lee S hun, Son DW, Lee J seok, Sung S ki, Lee SW. Relationship Between Endplate Defects , Modic Change , Facet Joint Degeneration , and Disc Degeneration of Cervical Spine. 2020;17(2):443–52.
8. Sassack B, Carrier JD. Anatomy, Back, Lumbar Spine. In Treasure Island (FL); 2022.
9. Spine T. Clinical Anatomy of the Lumbosacral Spine.
10. Ko S, Vaccaro AR, Lee S, Lee J, Chang H. The Prevalence of Lumbar Spine Facet Joint Osteoarthritis and Its Association with Low Back Pain in Selected Korean Populations. 2014;385–91.
11. Bulut MD, Yazmalar L, Yavuz A, Toprak M. The relationship between facet joint osteoarthritis and Modic changes of the lumbar spine : a retrospective magnetic resonance imaging study Lomber omurganın faset eklem osteoartriti ve Modic değişiklikleri arasındaki ilişki : 2016;62(4):308–13.
12. Kwee RM, Kwee TC. Imaging of facet joint diseases. Clinical Imaging. 2021;80(March):167–79.



2, Kastler A, Nicot B, Pellat J michel, Tahon F, Attie A, et al. Facet joint e : from diagnosis to interventional management. 2018;773–89.

4, Resnick D. Osteoarthritis of the Facet of Oblique Radiographic Joints : /. :227–30.

5, Machin JL, Asdourian PL, Links JM, Sexton CC. Planar and High-

Resolution SPECT Bone Imaging in the Diagnosis of Facet Syndrome. 2014;(February 1995).

16. Weishaupt D. MR imaging and CT in osteoarthritis of the lumbar facet joints. 1999;215–9.
17. Guo R, Yang X, Zhong Y, Lai Q, Gao T, Lai F, et al. Correlations between Modic change and degeneration in 3-joint complex of the lower lumbar spine. 2018;0(January):1–8.
18. Modic T, Steinberg M, Ross S, Carter R. No Title. 1988;193–9.
19. Herlin C, Kjaer P, Espeland A, Skouen JS. Modic changes — Their associations with low back pain and activity limitation : A systematic literature review and meta-analysis. 2018;1–27.
20. Kjaer P, Leboeuf-yde C, Korsholm L, Sorensen JS, Bendix T, Sci M. Magnetic Resonance Imaging and Low Back Pain in Adults : A Diagnostic Imaging Study of 40-Year-Old Men and Women. 2005;30(10):1173–80.
21. Weishaupt D, Zanetti M, Hodler J, Min K, Fuchs B, Pfirrmann CWA. Painful Lumbar Disk Derangement : Relevance of Endplate Abnormalities at MR Imaging 1.
22. Chung CB, Berg BC Vande, Cotten A, Vallee C, David A, Gourion B, et al. End plate marrow changes in the asymptomatic lumbosacral spine : frequency , distribution and correlation with age and degenerative changes. 2004;399–404.
23. Sorensen JS, Niinima ÆJ, Leboeuf-yde C. Vertebral endplate signal changes (Modic change) : a systematic literature review of prevalence and association with non-specific low back pain. 2008;1407–22.
24. Kanna RM, Shanmuganathan R, Rajagopalan VR, Natesan S, Muthuraja R, Man K, et al. Analysis of Modic Vertebral Endplate Changes. 2017;594–600.
25. Adams MA, Nally DSMC, Dolan P. ‘ STRESS ’ DISTRIBUTIONS INSIDE INTERVERTEBRAL DISCS THE EFFECTS OF AGE AND DEGENERATION. 1992;965–72.
26. Schmid G, Witteler A, Willburger R, Kuhnen C, Jergas M, Koester O. Lumbar Disk Herniation : Correlation of Histologic Findings with Marrow Signal Intensity Changes in Vertebral Endplates at MR Imaging 1. 2004;
27. Albert HB, Kjaer P, Jensen TS, Sorensen JS, Bendix T, Manniche C. Modic changes , possible causes and relation to low back pain. 2008;361–8.



H, Zhao CQ, Jiang LS, Chen XD, Dai LY. Modic changes: a systematic f the literature. Eur Spine J. 2008 Oct;17(10):1289–99.

M, Karppinen J, Niinima J, Tervonen O. A Three-Year Follow-up of Lumbar ndplate (Modic) Changes. 2006;31(15):1714–8.

M aged M. Modic Changes in Endplates of Lumbar Vertebral Bodies

Prevalence and Association With Low Back and Sciatic Pain Among. 2007;32(10):1116–22.

31. Quattrocchi CC, Alexandre AM, Pepa GM Della, Altavilla R, Zobel BB. Modic Changes : Anatomy , Pathophysiology and Clinical Correlation. 2011;49–53.
32. Xia W, Liu C, Duan S, Xu S, Wang K, Zhu Z, et al. The influence of spinal-pelvic parameters on the prevalence of endplate Modic changes in degenerative thoracolumbar / lumbar kyphosis patients. 2018;9:1–12.
33. Soo M, Moon PS hwan, Seung T hwan K, Lee Y, Riew Y geol JKD. Relationship between Modic changes and facet joint degeneration in the cervical spine. 2015;
34. Dudli S, Fields AJ, Samartzis D, Karppinen J, Lotz JC. Pathobiology of Modic changes. European Spine Journal. 2016 Nov 25;25(11):3723–34.
35. Netzer C, Distel P, Wolfram U, Deyhle H, Jost G, Schären S, et al. Comparative Analysis of Bone Structural Parameters Reveals Subchondral Cortical Plate Resorption and Increased Trabecular Bone Remodeling in Human Facet Joint Osteoarthritis. Int J Mol Sci. 2018 Mar 14;19(3):845.
36. Gellhorn AC, Katz JN, Suri P. Osteoarthritis of the spine: the facet joints. Nat Rev Rheumatol. 2013 Apr 13;9(4):216–24.
37. Kalichman L, Guermazi A, Li L, Hunter DJ. Association between age, sex, BMI and CT-evaluated spinal degeneration features. J Back Musculoskelet Rehabil. 2009 Dec 7;22(4):189–95.
38. Kalichman L, Li L, Kim DH, Guermazi A, Berkin V, O'Donnell CJ, et al. Facet Joint Osteoarthritis and Low Back Pain in the Community-Based Population. Spine (Phila Pa 1976). 2008 Nov;33(23):2560–5.
39. Xu L, Chu B, Feng Y, Xu F, Zou YF. Modic changes in lumbar spine: prevalence and distribution patterns of end plate oedema and end plate sclerosis. Br J Radiol. 2016 Apr;89(1060):20150650.
40. Alpaycı M. The relationship between facet joint osteoarthritis and Modic changes of the lumbar spine: a retrospective magnetic resonance imaging study. Türkiye Fiziksel Tıp ve Rehabilitasyon Dergisi. 2016 Dec 19;62(4):308–13.



LAMPIRAN 1



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.
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REKOMENDASI PERSETUJUAN ETIK

Nomor : 34/UN4.6.4.5.31/ PP36/ 2023

Tanggal: 16 Januari 2023

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

No Protokol	UH23010028		No Sponsor	Protokol
Peneliti Utama	dr.Pricilla Shinta		Sponsor	
Judul Peneliti	KORELASI PERUBAHAN ENDPLATE TIPE MODIC PADA MAGNETIC RESONANCE IMAGING LUMBOSACRAL TERHADAP FACET JOINT OSTEOARTHRITIS BERDASARAKAN PATHRIA GRADING			
No Versi	1	Tanggal	13	Januari
Protokol		Versi	2023	
No Versi PSP		Tanggal		
		Versi		
Tempat Penelitian	RSUP Dr. Wahidin Sudirohusodo Makassar			
Jenis Review	☒ Exempted ☐ Expedited ☐ Fullboard Tanggal	Masa Berlaku	16 Januari 2023	Frekuensi review lanjutan
		sampai	16 Januari 2024	
Ketua KEP Universitas Hasanuddin	Nama	Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)		
	Tanda tangan			
Sekretaris KEP Universitas Hasanuddin	Nama	dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)		
	Tanda tangan			

Kewajiban Peneliti Utama:

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



LAMPIRAN 2

Frequency Table

Jeniskelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	95	48.0	48.0	48.0
	Perempuan	103	52.0	52.0	100.0
	Total	198	100.0	100.0	

Usia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25 tahun	5	2.5	2.5	2.5
	26-35 tahun	26	13.1	13.1	15.7
	36-45 tahun	34	17.2	17.2	32.8
	46-55 tahun	55	27.8	27.8	60.6
	56-65 tahun	53	26.8	26.8	87.4
	> 65 tahun	25	12.6	12.6	100.0
	Total	198	100.0	100.0	

BMI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	underweight	2	1.0	1.0	1.0
	normal	51	25.8	25.8	26.8
	overweight	113	57.1	57.1	83.8
	obesitas	32	16.2	16.2	100.0
	Total	198	100.0	100.0	



Levelspinal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	L1-L2	2	1.0	1.0	1.0
	L2-L3	4	2.0	2.0	3.0
	L3-L4	13	6.6	6.6	9.6
	L4-L5	110	55.6	55.6	65.2
	L5-S1	69	34.8	34.8	100.0
	Total	198	100.0	100.0	

PerubahanModic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TIPE 1	49	24.7	24.7	24.7
	TIPE 2	116	58.6	58.6	83.3
	TIPE 3	33	16.7	16.7	100.0
	Total	198	100.0	100.0	

Facetjointatritis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	1	.5	.5	.5
	mild	49	24.7	24.7	25.3
	moderate	123	62.1	62.1	87.4
	severe	25	12.6	12.6	100.0
	Total	198	100.0	100.0	



Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Jeniskelamin *	198	100.0%	0	0.0%	198	100.0%
PerubahanModic						
Usia *	198	100.0%	0	0.0%	198	100.0%
PerubahanModic						
BMI *	198	100.0%	0	0.0%	198	100.0%
PerubahanModic						
Levelspinal *	198	100.0%	0	0.0%	198	100.0%
PerubahanModic						

Jeniskelamin * PerubahanModic Crosstabulation

			PerubahanModic			Total
			TIPE 1	TIPE 2	TIPE 3	
Jeniskelamin	Laki-laki	Count	28	57	10	95
		% within PerubahanModic	57.1%	49.1%	30.3%	48.0%
	Perempuan	Count	21	59	23	103
		% within PerubahanModic	42.9%	50.9%	69.7%	52.0%
Total		Count	49	116	33	198
		% within PerubahanModic	100.0%	100.0%	100.0%	100.0%



Usia * PerubahanModic Crosstabulation

			PerubahanModic			Total
			TIPE 1	TIPE 2	TIPE 3	
Usia	17-25 tahun	Count	3	0	2	5
		% within PerubahanModic	6.1%	0.0%	6.1%	2.5%
	26-35 tahun	Count	23	1	2	26
		% within PerubahanModic	46.9%	0.9%	6.1%	13.1%
	36-45 tahun	Count	11	20	3	34
		% within PerubahanModic	22.4%	17.2%	9.1%	17.2%
	46-55 tahun	Count	7	41	7	55
		% within PerubahanModic	14.3%	35.3%	21.2%	27.8%
	56-65 tahun	Count	3	38	12	53
		% within PerubahanModic	6.1%	32.8%	36.4%	26.8%
	> 65 tahun	Count	2	16	7	25
		% within PerubahanModic	4.1%	13.8%	21.2%	12.6%
Total	Count	49	116	33	198	
	% within PerubahanModic	100.0%	100.0%	100.0%	100.0%	



BMI * PerubahanModic Crosstabulation

			PerubahanModic			Total
			TIPE 1	TIPE 2	TIPE 3	
BMI	underweight	Count	1	1	0	2
		% within PerubahanModic	2.0%	0.9%	0.0%	1.0%
	normal	Count	19	30	2	51
		% within PerubahanModic	38.8%	25.9%	6.1%	25.8%
	overweight	Count	22	74	17	113
		% within PerubahanModic	44.9%	63.8%	51.5%	57.1%
	obesitas	Count	7	11	14	32
		% within PerubahanModic	14.3%	9.5%	42.4%	16.2%
Total	Count	49	116	33	198	
	% within PerubahanModic	100.0%	100.0%	100.0%	100.0%	



Levelspinal * PerubahanModic Crosstabulation

			PerubahanModic			Total
			TIPE 1	TIPE 2	TIPE 3	
Levelspinal	L1-L2	Count	2	0	0	2
		% within PerubahanModic	4.1%	0.0%	0.0%	1.0%
	L2-L3	Count	2	1	1	4
		% within PerubahanModic	4.1%	0.9%	3.0%	2.0%
	L3-L4	Count	3	9	1	13
		% within PerubahanModic	6.1%	7.8%	3.0%	6.6%
	L4-L5	Count	26	66	18	110
		% within PerubahanModic	53.1%	56.9%	54.5%	55.6%
	L5-S1	Count	16	40	13	69
		% within PerubahanModic	32.7%	34.5%	39.4%	34.8%
Total		Count	49	116	33	198
		% within PerubahanModic	100.0%	100.0%	100.0%	100.0%

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Jeniskelamin *	198	100.0%	0	0.0%	198	100.0%
Facetjointatritis	198	100.0%	0	0.0%	198	100.0%
Usia *	198	100.0%	0	0.0%	198	100.0%
Facetjointatritis	198	100.0%	0	0.0%	198	100.0%
BMI *	198	100.0%	0	0.0%	198	100.0%



Jeniskelamin * Facetjointatritis Crosstabulation

			Facetjointatritis				Total
			Normal	mild	moderate	severe	
Jeniskelamin	Laki-laki	Count	0	30	58	7	95
		% within Facetjointatritis	0.0%	61.2%	47.2%	28.0%	48.0%
	Perempuan	Count	1	19	65	18	103
		% within Facetjointatritis	100.0%	38.8%	52.8%	72.0%	52.0%
Total		Count	1	49	123	25	198
		% within Facetjointatritis	100.0%	100.0%	100.0%	100.0%	100.0%

Usia * Facetjointatritis Crosstabulation

			Facetjointatritis				Total
			Normal	mild	moderate	severe	
Usia	17-25 tahun	Count	1	4	0	0	5
		% within Facetjointatritis	100.0%	8.2%	0.0%	0.0%	2.5%
	26-35 tahun	Count	0	21	4	1	26
		% within Facetjointatritis	0.0%	42.9%	3.3%	4.0%	13.1%
	36-45 tahun	Count	0	8	25	1	34
		% within Facetjointatritis	0.0%	16.3%	20.3%	4.0%	17.2%
	46-55 tahun	Count	0	9	41	5	55
		% within Facetjointatritis	0.0%	18.4%	33.3%	20.0%	27.8%
	56-65 tahun	Count	0	3	38	12	53
		% within Facetjointatritis	0.0%	6.1%	30.9%	48.0%	26.8%
	> 65 tahun	Count	0	4	15	6	25
		% within Facetjointatritis	0.0%	8.2%	12.2%	24.0%	12.6%
	Count		1	49	123	25	198
	% within Facetjointatritis		100.0%	100.0%	100.0%	100.0%	100.0%



BMI * Facetjointatritis Crosstabulation

			Facetjointatritis				Total
			Normal	mild	moderate	severe	
BMI	underweight	Count	0	0	2	0	2
		% within Facetjointatritis	0.0%	0.0%	1.6%	0.0%	1.0%
	normal	Count	0	22	27	2	51
		% within Facetjointatritis	0.0%	44.9%	22.0%	8.0%	25.8%
	overweight	Count	1	19	79	14	113
		% within Facetjointatritis	100.0%	38.8%	64.2%	56.0%	57.1%
	obesitas	Count	0	8	15	9	32
		% within Facetjointatritis	0.0%	16.3%	12.2%	36.0%	16.2%
Total	Count	1	49	123	25	198	
	% within Facetjointatritis	100.0%	100.0%	100.0%	100.0%	100.0%	



Levelspinal * Facetjointatritis Crosstabulation

			Facetjointatritis				Total
			Normal	mild	moderate	severe	
Levelspinal	L1-L2	Count	0	2	0	0	2
		% within Facetjointatritis	0.0%	4.1%	0.0%	0.0%	1.0%
	L2-L3	Count	0	1	2	1	4
		% within Facetjointatritis	0.0%	2.0%	1.6%	4.0%	2.0%
	L3-L4	Count	0	3	9	1	13
		% within Facetjointatritis	0.0%	6.1%	7.3%	4.0%	6.6%
	L4-L5	Count	0	29	68	13	110
		% within Facetjointatritis	0.0%	59.2%	55.3%	52.0%	55.6%
	L5-S1	Count	1	14	44	10	69
		% within Facetjointatritis	100.0%	28.6%	35.8%	40.0%	34.8%
Total	Count	1	49	123	25	198	
	% within Facetjointatritis	100.0%	100.0%	100.0%	100.0%	100.0%	

Nonparametric Correlations

Correlations

			Perubahan Modic	Jeniskelamin
Spearman's rho	PerubahanModic	Correlation Coefficient	1.000	.161*
		Sig. (2-tailed)	.	.023
		N	198	198
	Jeniskelamin	Correlation Coefficient	.161*	1.000
		Sig. (2-tailed)	.023	.
		N	198	198



gnificant at the 0.05 level (2-tailed).

Nonparametric Correlations

Correlations			Perubahan Modic	Usia
Spearman's rho	PerubahanModic	Correlation Coefficient	1.000	.445**
		Sig. (2-tailed)	.	.000
		N	198	198
	Usia	Correlation Coefficient	.445**	1.000
		Sig. (2-tailed)	.000	.
		N	198	198

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

Nonparametric Correlations

Correlations			Perubahan Modic	BMI
Spearman's rho	PerubahanModic	Correlation Coefficient	1.000	.280**
		Sig. (2-tailed)	.	.000
		N	198	198
	BMI	Correlation Coefficient	.280**	1.000
		Sig. (2-tailed)	.000	.
		N	198	198

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



Nonparametric Correlations

Correlations			Perubahan Modic	Levelspinal
Spearman's rho	PerubahanModic	Correlation	1.000	.073
		Coefficient		
		Sig. (2-tailed)		
		N		
	Levelspinal	Correlation	.073	1.000
		Coefficient		
		Sig. (2-tailed)		
		N		

Correlations			Facetjointat ritis	Jeniskelami n
Spearman's rho	Facetjointatritis	Correlation	1.000	.179*
		Coefficient		
		Sig. (2-tailed)		
		N		
	Jeniskelamin	Correlation	.179*	1.000
		Coefficient		
		Sig. (2-tailed)		
		N		

*. Correlation is significant at the 0.05 level (2-tailed).



Nonparametric Correlations

Correlations			Facetjointatritis	Usia
Spearman's rho	Facetjointatritis	Correlation Coefficient	1.000	.472**
		Sig. (2-tailed)	.	.000
		N	198	198
	Usia	Correlation Coefficient	.472**	1.000
		Sig. (2-tailed)	.000	.
		N	198	198

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

Nonparametric Correlations

Correlations			Facetjointatritis	BMI
Spearman's rho	Facetjointatritis	Correlation Coefficient	1.000	.232**
		Sig. (2-tailed)	.	.001
		N	198	198
	BMI	Correlation Coefficient	.232**	1.000
		Sig. (2-tailed)	.001	.
		N	198	198

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



Nonparametric Correlations

Correlations			Facetjointat ritis	Levelspinal
Spearman's rho	Facetjointatritis	Correlation	1.000	.071
		Coefficient		
		Sig. (2-tailed)		
		N		
	Levelspinal	Correlation	.071	1.000
		Coefficient		
		Sig. (2-tailed)		
		N		

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PerubahanModic * Facetjointatritis	198	100.0%	0	0.0%	198	100.0%



PerubahanModic * Facetjointatritis Crosstabulation

			Facetjointatritis				Total
			Normal	mild	moderate	severe	
PerubahanModic	TIPE 1	Count	1	37	9	2	49
		% within Facetjointatritis	100.0%	75.5%	7.3%	8.0%	24.7%
	TIPE 2	Count	0	5	109	2	116
		% within Facetjointatritis	0.0%	10.2%	88.6%	8.0%	58.6%
	TIPE 3	Count	0	7	5	21	33
		% within Facetjointatritis	0.0%	14.3%	4.1%	84.0%	16.7%
Total	Count	1	49	123	25	198	
	% within Facetjointatritis	100.0%	100.0%	100.0%	100.0%	100.0%	

Nonparametric Correlations

Correlations

			Facetjointatritis	PerubahanModic
Spearman's rho	Facetjointatritis	Correlation Coefficient	1.000	.631**
		Sig. (2-tailed)	.	.000
		N	198	198
	PerubahanModic	Correlation Coefficient	.631**	1.000
		Sig. (2-tailed)	.000	.
		N	198	198

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



LAMPIRAN 3

CURRICULUM VITAE

A. Data Pribadi

- Nama : dr. Pricilla Shinta
- Agama : Kristen
- Tempat/Tgl Lahir : Jember / 17 Maret 1984
- Alamat : Primrose Avenue no.12
- Nama Ayah/Ibu : Yudianto/Alm.Ribka W
- Suami : Yance Tambunan, S.Pi
- Anak : Jason Elkan

B. Riwayat Pendidikan

- TK : TK Maria Fatima
- SD : SDK Santa Maria
- SMP : SMP Santa Maria
- SMA : SMAK Santo Paulus
- Perguruan Tinggi : Fakultas Kedokteran Universitas Wijaya Kusuma Surabaya
- Profesi Dokter : Fakultas Kedokteran Universitas Wijaya Kusuma Surabaya
- PPDS : Departemen Radiologi Fakultas Kedokteran Universitas Hasanuddin Periode Juli 2020



C. Riwayat Pekerjaan

1. Dokter Umum di RSUD Anutapura Palu tahun 2010-2014
2. Dokter Umum di Siloam Hospitals Balikpapan tahun 2014-2016
3. Dokter Umum di Siloam Hospitals Makassar tahun 2016-2021

D. Makalah pada Seminar/Konferensi Ilmiah Nasional :

“Malignant Lymphoma Non Hodgkin’s on right iliac wing”, dibawakan pada acara PIT PDSRKI 16th “Role of Radiology in emergency setting : Current and Future Challenges” Manado, 11-12 Maret 2022





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