

LAMPIRAN

Lampiran 2. Rekapitulasi Data Hasil Penelitian



PEMERINTAH PROVINSI JAWA TIMUR
DINAS KESEHATAN
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Judul Penelitian : Analisis Perbedaan Morfologi Eritrosit pada Sedimen Urin Pasien Hematuria Menggunakan Metode Otomatis dan Mikroskopis.
Tanggal penelitian : 1 - 30 April 2026
Tempat penelitian : Instalasi Laboratorium Sentral RSUD dr. Saiful Anwar Provinsi Jawa Timur
Hasil penelitian : Hasil Rekapitulasi Morfologi Eritrosit Eumorfik dan Dismorfik

Sampel	Nama	Usia	JK	Metode Otomatis (UF-4000)		Metode Mikroskopis		Diagnosis
				Eumorfik (%)	Dismorfik (%)	Eumorfik (%)	Dismorfik (%)	
1	EK	34	P	79	21	80	20	Systemic lupus erythematosus
2	SPR	30	P	89	11	89	11	Chronic kidney disease, stage 5
3	APD	17	P	23	77	60	40	Systemic lupus erythematosus with organ or system involvement
4	LNK	25	P	29	71	29	71	Systemic lupus erythematosus
5	TAS	33	P	34	66	25	75	Nephrotic dd Nephritic Syndrome
6	TRIS	28	P	30	70	70	30	Systemic lupus erythematosus with organ or system involvement
7	AAD	20	P	15	85	15	85	Systemic lupus erythematosus
8	WN	39	P	58	42	65	35	Sepsis dt susp peritonitis dd pneumonia
9	HI	40	L	74	26	74	26	Testis, unspecified
10	EPNE	22	P	29	71	29	71	Systemic lupus erythematosus
11	AFM	29	P	68	32	68	32	Pneumonia, unspecified
12	APD	17	P	11	89	11	89	Systemic lupus erythematosus with organ or system involvement
13	COY	25	L	91	9	91	9	Malignant neoplasm of bladder
14	FSR	17	P	61	39	61	39	Anaemia, unspecified
15	ALA	26	P	90	10	90	10	Severe pre-eclampsia
16	RA	38	L	88	12	88	12	Calculus of kidney and ureter
17	GTHS	31	P	89	11	89	11	Morbidly adherent placenta
18	TR	28	P	23	77	23	77	Systemic lupus erythematosus with organ or system involvement
19	AR	23	P	42	58	42	58	Fever, unspecified

20	DI	30	P	71	29	71	29	Systemic lupus erythematosus
21	AN	26	P	18	82	18	82	Epilepsy, unspecified
22	RSV	16	P	17	83	17	83	Systemic lupus erythematosus with organ or system involvement
23	AP	17	P	21	79	21	79	Systemic lupus erythematosus with organ or system involvement
24	DP	29	P	37	63	37	63	Vasculitis limited to skin, unspecified
25	TK	29	L	54	46	54	46	Cystitis
26	AN	24	L	87	13	87	13	Malignant neoplasm of other connectif and soft tissue
27	SC	17	P	31	69	31	69	Systemic lupus erythematosus, unspecified
28	KA	27	L	56	44	56	44	Systemic lupus erythematosus, unspecified
29	SR	38	P	75	25	75	25	Infective pericarditis
30	KR	27	L	26	74	26	74	Systemic lupus erythematosus, unspecified

Malang, 30 April 2026
Kepala Urusan Sarana dan Prasarana



Budi Setyo Julianto

Lampiran 3. Hasil Uji Statistik (SPSS)

a) Data Deskriptif Eumorfik

Descriptives					
	Metode		Statistic	Std. Error	
Hasil	Otomatis Eumorfik	Mean		50.53	5.033
		95% Confidence Interval for Mean	Lower Bound	40.24	
			Upper Bound	60.83	
		5% Trimmed Mean		50.43	
		Median		48.00	
		Variance		759.913	
		Std. Deviation		27.567	
		Minimum		11	
		Maximum		91	
		Range		80	
		Interquartile Range		51	
		Skewness		.184	.427
		Kurtosis		-1.546	.833
		Mikroskopis Eumorfik	Mean		53.07
	95% Confidence Interval for Mean		Lower Bound	42.85	
			Upper Bound	63.29	
	5% Trimmed Mean		53.24		
	Median		58.00		
	Variance		749.099		
	Std. Deviation		27.370		
	Minimum		11		
	Maximum		91		
	Range		80		
	Interquartile Range		51		
	Skewness		-.055	.427	
	Kurtosis		-1.542	.833	

b) Uji Normalitas Eumorfik

Tests of Normality							
	Metode	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
Hasil	Otomatis Eumorfik	.161	30	.046	.896	30	.007
	Mikroskopis Eumorfik	.157	30	.058	.904	30	.011
a. Lilliefors Significance Correction							

c) Uji Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
Mikroskopis Eumorfik - Otomatis Eumorfik	Negative Ranks	1 ^a	3.00	3.00
	Positive Ranks	4 ^b	3.00	12.00
	Ties	25 ^c		
	Total	30		
a. Mikroskopis Eumorfik < Otomatis Eumorfik				
b. Mikroskopis Eumorfik > Otomatis Eumorfik				
c. Mikroskopis Eumorfik = Otomatis Eumorfik				

Test Statistics ^a	
	Mikroskopis Eumorfik - Otomatis Eumorfik
Z	-1.214 ^b
Asymp. Sig. (2-tailed)	.225
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

d) Data Deskriptis Dismorfik

Descriptives					
	Metode		Statistic	Std. Error	
Hasil	Otomatis Dismorfik	Mean		49.47	5.033
		95% Confidence Interval for Mean	Lower Bound	39.17	
			Upper Bound	59.76	
		5% Trimmed Mean		49.57	
		Median		52.00	
		Variance		759.913	
		Std. Deviation		27.567	
		Minimum		9	
		Maximum		89	
		Range		80	
		Interquartile Range		51	
		Skewness		-.184	.427
		Kurtosis		-1.546	.833
		Mikroskopis Dismorfik	Mean		46.93
	95% Confidence Interval for Mean		Lower Bound	36.71	
			Upper Bound	57.15	
	5% Trimmed Mean		46.76		
	Median		42.00		
	Variance		749.099		
	Std. Deviation		27.370		
	Minimum		9		
	Maximum		89		
	Range		80		
	Interquartile Range		51		
	Skewness		.055	.427	
	Kurtosis		-1.542	.833	

e) Uji Normalitas Dismorfik

Tests of Normality							
	Metode	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil	Otomatis Dismorfik	.161	30	.046	.896	30	.007
	Mikroskopis Dismorfik	.157	30	.058	.904	30	.011
a. Lilliefors Significance Correction							

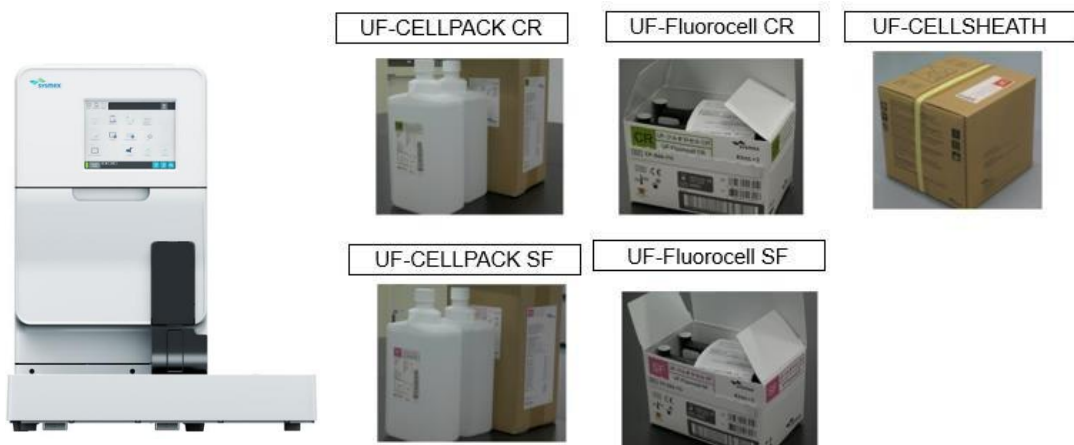
f) Uji Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
Mikroskopis Dismorfik - Otomatis Dismorfik	Negative Ranks	4 ^a	3.00	12.00
	Positive Ranks	1 ^b	3.00	3.00
	Ties	25 ^c		
	Total	30		
a. Mikroskopis Dismorfik < Otomatis Dismorfik				
b. Mikroskopis Dismorfik > Otomatis Dismorfik				
c. Mikroskopis Dismorfik = Otomatis Dismorfik				

Test Statistics ^a	
	Mikroskopis Dismorfik - Otomatis Dismorfik
Z	-1.214 ^b
Asymp. Sig. (2-tailed)	.225
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Lampiran 4. Dokumentasi Penelitian

a) Alat dan Reagen



b) QC alat Sysmex UF-4000



c) Proses pengerjaan penelitian

Pengerjaan sampel metode otomatis



Pengerjaan sampel metode mikroskopis



d) Contoh gambar hasil dari alat Sysmex UF-4000 ke LIS

64	I	RTEC (Urine Rutin)	-	/HPF	✓	-	-	0 - 1	✓	
65	I	Eritrosit 40 X (Urine Rutin)	17.9	/LPB (1/μL)	✓	63.5	36.4	0 - 2 / LPB	✓	✓
66	M	Eritrosit 40 X (Urine Rutin) /μL	99.44	/μL	✓	352.78	202.22		✓	✓
67	M	Eumorfik (Urine Rutin)	37	%	✓	-	16		✓	✓
68	M	Eumorfik (Urine Rutin) - Hitung	36.52	%	✓	82.61	15.95		✓	
69	M	Dismorfik (Urine Rutin)	63	Eritrosit acanthocytes 7 (%)	✓	-	84		✓	✓
70	M	Dismorfik (Urine Rutin) - Hitung	63.37	%	✓	17.39	84.00		✓	

UF							
23/02/2026 08:50:06.UF-4000_0004/D6							
R	Item name	Result	Unit	LH	M	Main format	Unit
	RBC	99.8	/μl			17.9	/HPF
	NL RBC	90.9	/μl				/HPF
	WBC	39.2	/μl			7.0	/HPF
	WBC Clumps	1.1	/μl			0.1	/HPF
	EC	40.2	/μl			7.2	/HPF
	Squa EC	30.0	/μl			5.5	/HPF
	Non SEC	9.5	/μl			1.7	/HPF
	Tran EC	0.1	/μl			0.0	/HPF
	RT-EC	9.4	/μl			1.6	/HPF
	CAST	1.89	/μl			4.32	/LPE
	Hy CAST	1.35	/μl			3.91	/LPE
	Pam CAST	0.13	/μl			0.37	/LPE
	BACT	2210.8	/μl			397.9	/HPF
	X-TAL	0.0	/μl			0.0	/LPE
	YLC	1.4	/μl			0.2	/HPF
	SPERM	0.0	/μl			0.0	/HPF
	MUCUS	1.08	/μl			0.19	/HPF

