

Lampiran 1

Perhitungan dosis ekstrak air dan etanol meniran (*Phyllanthus niruri* L.)

Dosis 1 ekstrak air yang setara dengan 3 g dosis manusia:

$$\begin{aligned} 3 \text{ g} \times 0,0026 &= 0,0078 \text{ g/ Mencit 20 g} \\ &= 0,39 \text{ g/ kg BB} \end{aligned}$$

Dosis 1 ekstrak etanol yang setara dengan 3 g dosis manusia:

$$\begin{aligned} 3 \text{ g} \times 0,0026 \times 5\% &= 0,0078 \text{ g} \times 5\% / \text{Mencit 20 g} \\ &= 0,39 \text{ mg / Mencit 20 g} \\ &= 19,5 \text{ mg/ kg BB} \end{aligned}$$

Dosis 2 ekstrak air yang setara dengan 7,5 g Dosis Manusia:

$$\begin{aligned} 7,5 \text{ g} \times 0,0026 &= 0,0195 \text{ g/ Mencit 20 g} \\ &= 0,975 \text{ g/ kg BB} \end{aligned}$$

Dosis 2 ekstrak etanol yang setara dengan 7,5 g Dosis Manusia:

$$\begin{aligned} 7,5 \text{ g} \times 0,0026 \times 5\% &= 0,0195 \times 5\% / \text{Mencit 20 g} \\ &= 0,975 \text{ mg / Mencit 20 g} \\ &= 48,75 \text{ mg/ kg BB} \end{aligned}$$

Dosis 3 ekstrak air yang setara dengan 15 g Dosis Manusia:

$$\begin{aligned} 15 \text{ g} \times 0,0026 &= 0,039 \text{ g/ Mencit 20 g} \\ &= 1,95 \text{ g/kg BB} \end{aligned}$$

Dosis 3 ekstrak etanol yang setara dengan 15 g Dosis Manusia:

$$\begin{aligned} 15 \text{ g} \times 0,0026 \times 5\% &= 0,039 \times 5\% / \text{Mencit 20 g} \\ &= 1,95 \text{ mg / Mencit 20 g} \\ &= 97,5 \text{ mg/kg BB} \end{aligned}$$

Dosis 4 ekstrak air yang setara dengan 30 g Dosis Manusia:

$$\begin{aligned} 30 \text{ g} \times 0,0026 &= 0,078 \text{ g/ Mencit 20 g} \\ &= 3,9 \text{ g/ kg BB} \end{aligned}$$

Dosis 4 ekstrak etanol yang setara dengan 30 g Dosis Manusia:

$$\begin{aligned} 30 \text{ g} \times 0,0026 \times 5\% &= 0,078 \times 5\% \text{ g} \\ &= 3,9 \text{ mg / Mencit 20 g} \end{aligned}$$

$$=195 \text{ mg/ kg BB}$$

Kontrol pembanding dengan menggunakan Loratadin dengan dosis 10 mg:

Dosis manusia 70 Kg = 10 mg.

Faktor konversi untuk mencit (20 g) = 0,0026.

Dosis Loratadin untuk mencit 20 g = $10 \text{ mg} / 0,0026 = 0,026 \text{ mg} / 0,5 \text{ cc air}$.

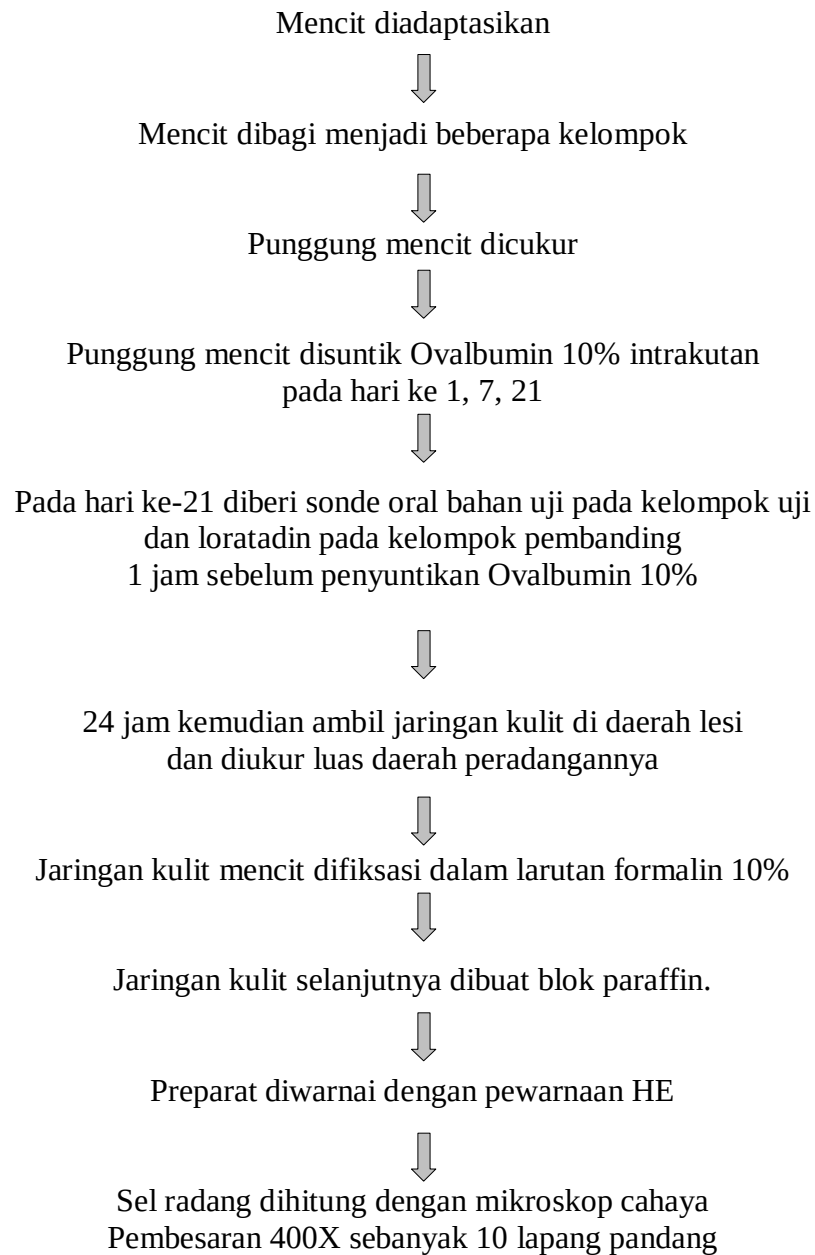
$$= 1,3 \text{ mg/kg BB mencit.}$$

Keterangan:

1 kg herba meniran kering setelah diekstrak dengan menggunakan etanol menjadi 50 g. Hal ini berarti hasil ekstrak etanol yang diperoleh adalah sebanyak 5 % dari herba keringnya. Sehingga dosis ekstrak etanol yang digunakan harus dikalikan 5 % dari dosis ekstrak air agar setara.

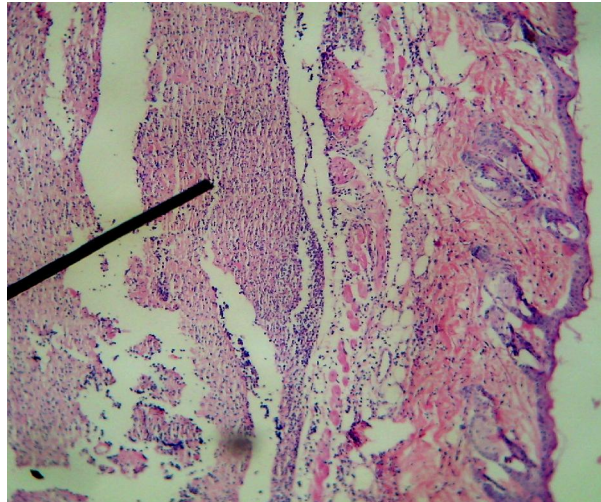
Lampiran 2

Alur cara kerja

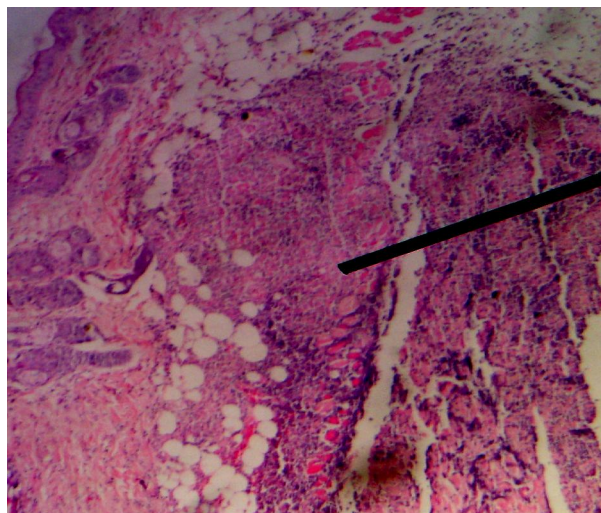


Lampiran 3

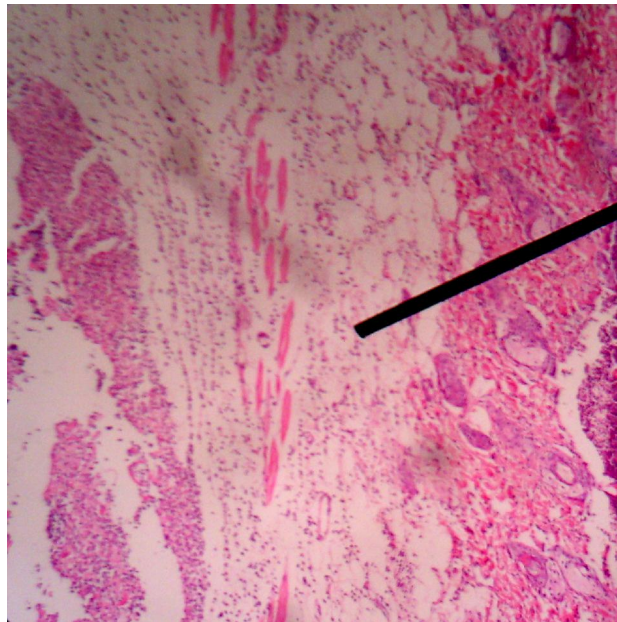
Gambar penyebaran sel radang dalam berbagai dosis pemberian ekstrak air dan etanol meniran (*Phyllanthus niruri* L.)



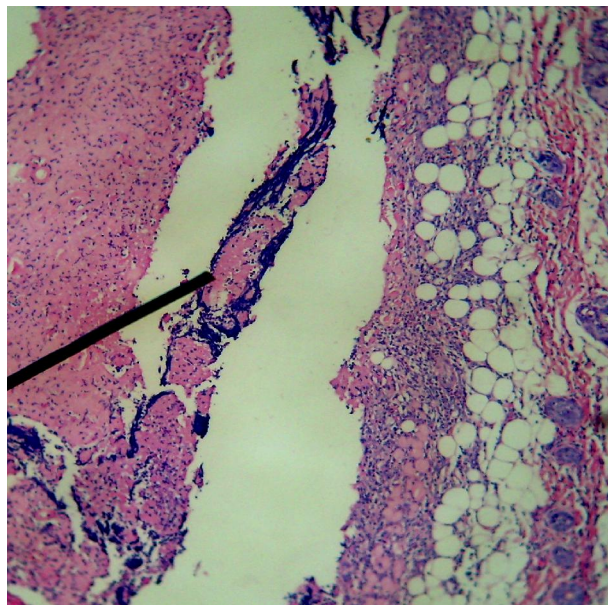
Gambar 1 Kontrol (-)
Pembesaran 100X



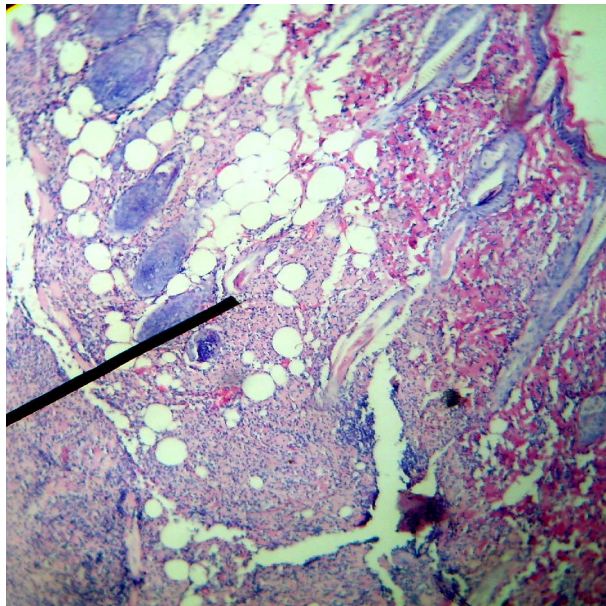
Gambar 2 Kontrol (+)
Pembesaran 100X



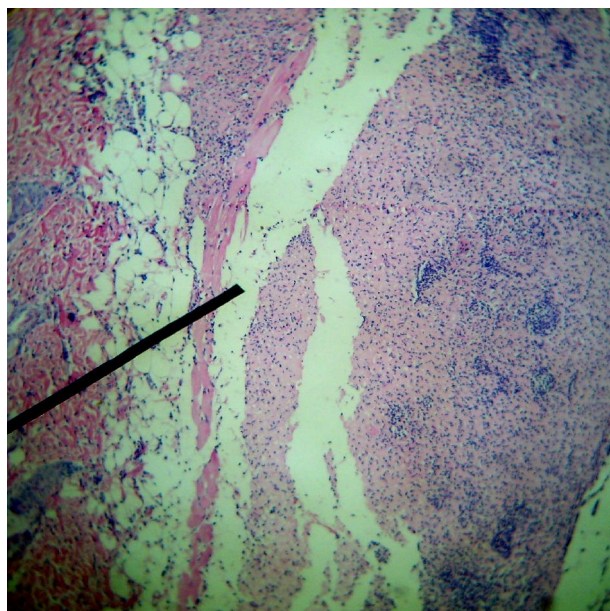
Gambar 3 Ekstrak Air Meniran (EAM) dosis 1
Pembesaran 100X



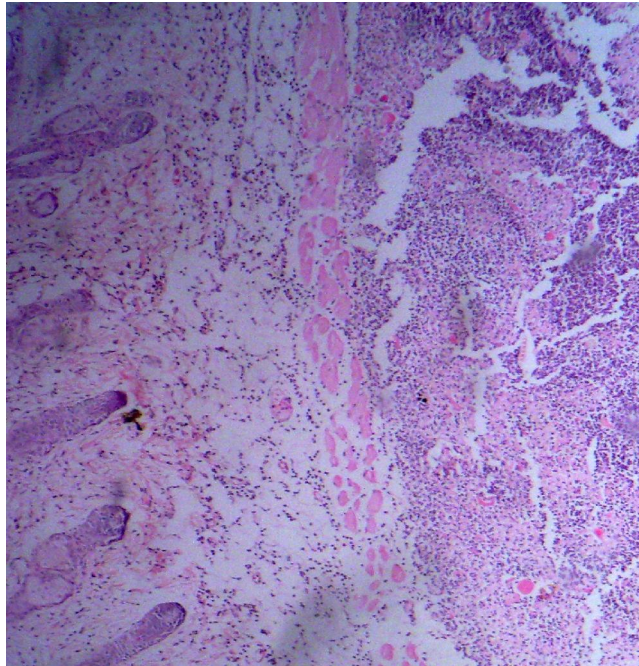
Gambar 4 Ekstrak Air Meniran (EAM) dosis 2
Pembesaran 100X



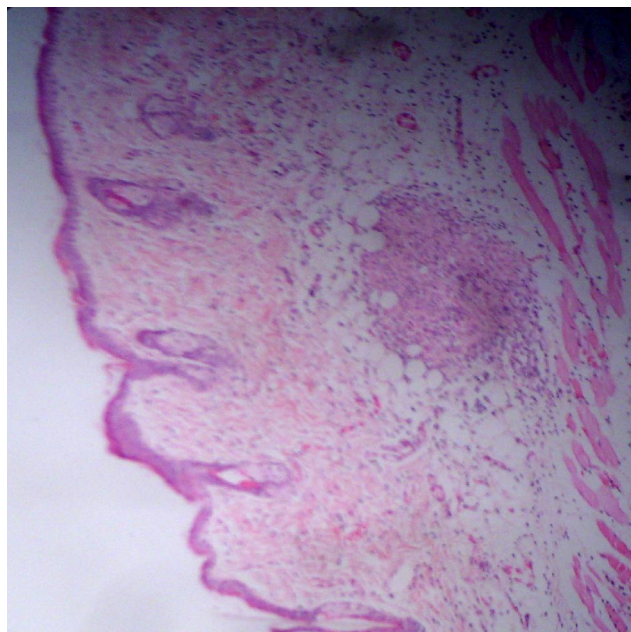
Gambar 5 Ekstrak Air Meniran (EAM) dosis 3
Pembesaran 100X



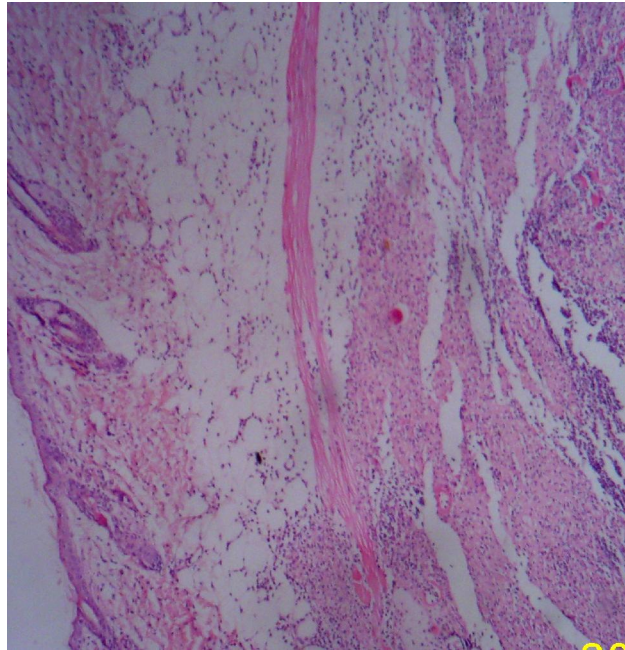
Gambar 6 Ekstrak Air Meniran (EAM) dosis 4
Pembesaran 100X



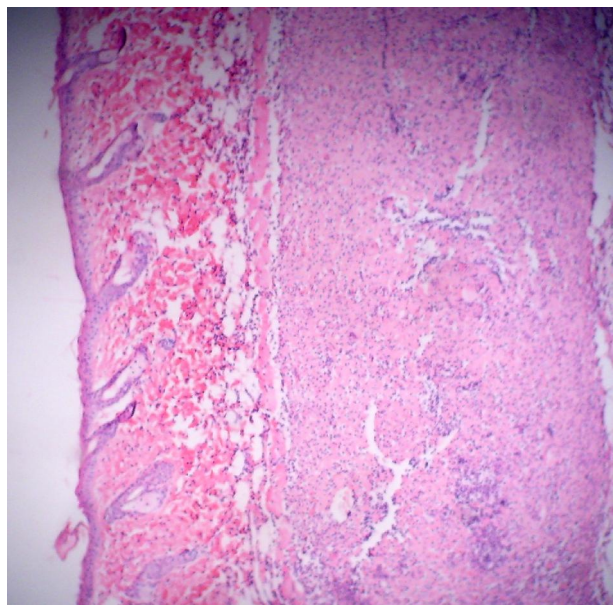
Gambar 7 Ekstrak Etanol Meniran (EEM) dosis 1
Pembesaran 100X



Gambar 8 Ekstrak Etanol Meniran (EEM) dosis 2
Pembesaran 100X



Gambar 9 Ekstrak Etanol Meniran (EEM) dosis 3
Pembesaran 100X



Gambar 10 Ekstrak Etanol Meniran (EEM) dosis 4
Pembesaran 100X

Lampiran 4

Uji statistik

Uji statistik penelitian dengan bahan uji Ekstrak Air Meniran (EAM) dengan parameter luas daerah peradangan.

One Way Analysis of Variance

Normality Test: Passed (P > 0.050)

Equal Variance Test: Passed (P = 0.232)

Group Name	N	Missing	Mean	Std Dev	SEM
Col 1	6	0	7.813	5.706	2.329
Col 2	6	0	4.218	2.182	0.891
Col 3	6	0	8.060	4.582	1.871
Col 4	6	0	7.283	3.457	1.411
Col 5	6	0	17.792	9.167	3.742
Col 6	6	0	12.780	3.203	1.307

Source of Variation	DF	SS	MS	F	P
Between Groups	5	702.533	140.507	5.123	0.002
Residual	30	822.733	27.424		
Total	35	1525.266			

The differences in the mean values among the treatment groups are greater than would be expected by chance; there is a statistically significant difference (P = 0.002).

Power of performed test with alpha = 0.050: 0.919

All Pairwise Multiple Comparison Procedures (Duncan's Method) :

Comparisons for factor:

Comparison	Diff of Means	p	q	P	P<0.050
Col 5 vs. Col 2	13.573	66.349	--	--	Yes
Col 5 vs. Col 4	10.508	54.915	--	--	Yes
Col 5 vs. Col 1	9.978	44.667	--	--	Yes
Col 5 vs. Col 3	9.732	34.552	--	--	Yes
Col 5 vs. Col 6	5.012	22.344	--	--	No
Col 6 vs. Col 2	8.562	54.005	--	--	Yes
Col 6 vs. Col 4	5.497	42.571	--	--	No
Col 6 vs. Col 1	4.967	32.323	--	--	No
Col 6 vs. Col 3	4.720	22.208	--	--	No
Col 3 vs. Col 2	3.842	41.797	--	--	No
Col 3 vs. Col 4	0.777	30.363	--	--	No
Col 3 vs. Col 1	0.247	20.115	--	--	No
Col 1 vs. Col 2	3.595	31.682	--	--	No
Col 1 vs. Col 4	0.530	20.248	--	--	No
Col 4 vs. Col 2	3.065	21.434	--	--	No

Note: The P values for Dunnett's and Duncan's tests are currently unavailable except for reporting that the P's are greater or less than the critical values of .05 and .01.

A result of "Do Not Test" occurs for a comparison when no significant difference is found between two means that enclose that comparison. For example, if you had four means sorted in order, and found no difference between means 4 vs. 2, then you would not test 4 vs. 3 and 3 vs. 2, but still test 4 vs. 1 and 3 vs. 1 (4 vs. 3 and 3 vs. 2 are enclosed by 4 vs. 2: 4 3 2 1). Note that not testing the enclosed means is a procedural rule, and a result of Do Not Test should be treated as if there is no significant difference between the means, even though one may appear to exist.

Uji statistik penelitian dengan bahan uji Ekstrak Air Meniran (EAM) dengan parameter jumlah sel-sel radang.

One Way Analysis of Variance

Data source: Data 1 in Notebook 5

Normality Test: Passed ($P > 0.050$)

Equal Variance Test: Passed ($P = 0.550$)

Group Name	N	Missing	Mean	Std Dev	SEM
Col 1	6	0	422.167	165.168	67.430
Col 2	6	0	324.833	146.847	59.950
Col 3	6	0	455.167	162.124	66.187
Col 4	6	0	558.667	217.265	88.698
Col 5	6	0	590.667	95.458	38.971
Col 6	6	0	366.167	122.405	49.972

Source of Variation	DF	SS	MS	F	P
Between Groups	5	330237.889	66047.578	2.706	0.039
Residual	30	732142.000	24404.733		
Total	35	1062379.889			

The differences in the mean values among the treatment groups are greater than would be expected by chance; there is a statistically significant difference ($P = 0.039$).

Power of performed test with $\alpha = 0.050$: 0.505

The power of the performed test (0.505) is below the desired power of 0.800.

You should interpret the negative findings cautiously.

All Pairwise Multiple Comparison Procedures (Duncan's Method) :

Comparisons for factor:

Comparison	Diff of Means	p	q	P	P<0.050
Col 5 vs. Col 2	265.833	64.168	--	--	Yes
Col 5 vs. Col 6	224.500	53.520	--	--	Yes
Col 5 vs. Col 1	168.500	42.642	--	--	No
Col 5 vs. Col 3	135.500	32.125	--	--	No
Col 5 vs. Col 4	32.000	20.502	--	--	No
Col 4 vs. Col 2	233.833	53.666	--	--	Yes
Col 4 vs. Col 6	192.500	43.018	--	--	No
Col 4 vs. Col 1	136.500	32.140	--	--	No
Col 4 vs. Col 3	103.500	21.623	--	--	No
Col 3 vs. Col 2	130.333	42.044	--	--	No
Col 3 vs. Col 6	89.000	31.395	--	--	No
Col 3 vs. Col 1	33.000	20.517	--	--	No
Col 1 vs. Col 2	97.333	31.526	--	--	No
Col 1 vs. Col 6	56.000	20.878	--	--	No
Col 6 vs. Col 2	41.333	20.648	--	--	No

Note: The P values for Dunnett's and Duncan's tests are currently unavailable except for reporting that the P's are greater or less than the critical values of .05 and .01.

A result of "Do Not Test" occurs for a comparison when no significant difference is found between two means that enclose that comparison. For example, if you had four means sorted in order, and found no difference between means 4 vs. 2, then you would not test 4 vs. 3 and 3 vs. 2, but still test 4 vs. 1 and 3 vs. 1 (4 vs. 3 and 3 vs. 2 are enclosed by 4 vs. 2: 4 3 2 1). Note that not testing the enclosed means is a procedural rule, and a result of Do Not Test should be treated as if there is no significant difference between the means, even though one may appear to exist.

Uji statistik penelitian dengan bahan uji Ekstrak Etanol Meniran dengan parameter luas daerah peradangan.

One Way Analysis of Variance

Data source: Data 1 in Notebook 3

Normality Test: Passed (P > 0.050)

Equal Variance Test: Passed (P = 0.544)

Group Name	N	Missing	Mean	Std Dev	SEM
Col 1	6	0	10.600	5.361	2.189
Col 2	6	0	3.478	4.250	1.735
Col 3	6	0	9.463	4.870	1.988
Col 4	6	0	7.430	4.022	1.642
Col 5	6	0	17.792	9.167	3.742
Col 6	6	0	12.780	3.203	1.307

Source of Variation	DF	SS	MS	F	P
Between Groups	5	706.959	141.392	4.687	0.003
Residual	30	904.926	30.164		
Total	35	1611.885			

The differences in the mean values among the treatment groups are greater than would be expected by chance; there is a statistically significant difference (P = 0.003).

Power of performed test with alpha = 0.050: 0.881

All Pairwise Multiple Comparison Procedures (Duncan's Method) :

Comparisons for factor:

Comparison	Diff of Means	p	q	P	P<0.050
Col 5 vs. Col 2	14.313	66.384	--		Yes
Col 5 vs. Col 4	10.362	54.621	--		Yes
Col 5 vs. Col 3	8.328	43.714	--		Yes
Col 5 vs. Col 1	7.192	33.207	--		Yes
Col 5 vs. Col 6	5.012	22.235	--		No
Col 6 vs. Col 2	9.302	54.148	--		Yes
Col 6 vs. Col 4	5.350	42.386	--		No
Col 6 vs. Col 3	3.317	31.479	--		No
Col 6 vs. Col 1	2.180	20.972	--		No
Col 1 vs. Col 2	7.122	43.176	--		Yes
Col 1 vs. Col 4	3.170	31.414	--		No
Col 1 vs. Col 3	1.137	20.507	--		No
Col 3 vs. Col 2	5.985	32.669	--		No
Col 3 vs. Col 4	2.033	20.907	--		No
Col 4 vs. Col 2	3.952	21.762	--		No

Note: The P values for Dunnett's and Duncan's tests are currently unavailable except for reporting that the P's are greater or less than the critical values of .05 and .01.

A result of "Do Not Test" occurs for a comparison when no significant difference is found between two means that enclose that comparison. For example, if you had four means sorted in order, and found no difference between means 4 vs. 2, then you would not test 4 vs. 3 and 3 vs. 2, but still test 4 vs. 1 and 3 vs. 1 (4 vs. 3 and 3 vs. 2 are enclosed by 4 vs. 2: 4 3 2 1). Note that not testing the enclosed means is a procedural rule, and a result of Do Not Test should be treated as if there is no significant difference between the means, even though one may appear to exist.

Uji statistik penelitian dengan bahan uji Ekstrak Etanol Meniran (EEM) dengan parameter jumlah sel-sel radang

One Way Analysis of Variance

Data source: Data 1 in Notebook 6

Normality Test: Passed (P > 0.050)

Equal Variance Test: Passed (P = 0.607)

Group Name	N	Missing	Mean	Std Dev	SEM
Col 1	6	0	202.833	152.535	62.272
Col 2	6	0	203.333	64.537	26.347
Col 3	6	0	267.833	54.124	22.096
Col 4	6	0	289.000	99.495	40.619
Col 5	6	0	590.667	95.458	38.971
Col 6	6	0	366.167	122.405	49.972

Source of Variation	DF	SS	MS	F	P
Between Groups	5	638479.806	127695.961	11.905	<0.001
Residual	30	321779.167	10725.972		
Total	35	960258.972			

The differences in the mean values among the treatment groups are greater than would be expected by chance; there is a statistically significant difference (P = <0.001).

Power of performed test with alpha = 0.050: 1.000

All Pairwise Multiple Comparison Procedures (Duncan's Method) :

Comparisons for factor:

Comparison	Diff of Means	p	q	P	P<0.050
Col 5 vs. Col 1	387.833	69.173	--	--	Yes
Col 5 vs. Col 2	387.333	59.161	--	--	Yes
Col 5 vs. Col 3	322.833	47.635	--	--	Yes
Col 5 vs. Col 4	301.667	37.135	--	--	Yes
Col 5 vs. Col 6	224.500	25.310	--	--	Yes
Col 6 vs. Col 1	163.333	53.863	--	--	Yes
Col 6 vs. Col 2	162.833	43.851	--	--	Yes
Col 6 vs. Col 3	98.333	32.326	--	--	No
Col 6 vs. Col 4	77.167	21.825	--	--	No
Col 4 vs. Col 1	86.167	42.038	--	--	No
Col 4 vs. Col 2	85.667	32.026	--	--	No
Col 4 vs. Col 3	21.167	20.501	--	--	No
Col 3 vs. Col 1	65.000	31.537	--	--	No
Col 3 vs. Col 2	64.500	21.526	--	--	No
Col 2 vs. Col 1	0.500	20.0118	--	--	No

Note: The P values for Dunnett's and Duncan's tests are currently unavailable except for reporting that the P's are greater or less than the critical values of .05 and .01.

A result of "Do Not Test" occurs for a comparison when no significant difference is found between two means that enclose that comparison. For example, if you had four means sorted in order, and found no difference between means 4 vs. 2, then you would not test 4 vs. 3 and 3 vs. 2, but still test 4 vs. 1 and 3 vs. 1 (4 vs. 3 and 3 vs. 2 are enclosed by 4 vs. 2: 4 3 2 1). Note that not testing the enclosed means is a procedural rule, and a result of Do Not Test should be treated as if there is no significant difference between the means, even though one may appear to exist.

Uji statistik perbandingan penelitian pengaruh Ekstrak Air Meniran (EAM) dan Ekstrak Etanol Meniran (EEM) dengan parameter luas daerah peradangan

One Way Analysis of Variance

Data source: Data 1 in Notebook 4

Normality Test: Passed ($P > 0.050$)

Equal Variance Test: Passed ($P = 0.161$)

Group Name	N	Missing	Mean	Std Dev	SEM
Col 1	6	0	4.218	2.182	0.891
Col 2	6	0	3.478	4.250	1.735
Col 3	6	0	17.792	9.167	3.742
Col 4	6	0	12.780	3.203	1.307

Source of Variation	DF	SS	MS	F	P
Between Groups	3	861.892	287.297	9.813	<0.001
Residual	20	585.542	29.277		
Total	23	1447.433			

The differences in the mean values among the treatment groups are greater than would be expected by chance; there is a statistically significant difference ($P = <0.001$).

Power of performed test with $\alpha = 0.050$: 0.987

All Pairwise Multiple Comparison Procedures (Duncan's Method) :

Comparisons for factor:

Comparison	Diff of Means	p	q	P	P<0.050
Col 3 vs. Col 2	14.313	46.480	--	Yes	
Col 3 vs. Col 1	13.573	36.145	--	Yes	
Col 3 vs. Col 4	5.012	22.269	--	No	
Col 4 vs. Col 2	9.302	34.211	--	Yes	
Col 4 vs. Col 1	8.562	23.876	--	Yes	
Col 1 vs. Col 2	0.740	20.335	--	No	

Note: The P values for Dunnett's and Duncan's tests are currently unavailable except for reporting that the P's are greater or less than the critical values of .05 and .01.

Uji statistik perbandingan penelitian pengaruh Ekstrak Air Meniran (EAM) dan Ekstrak Etanol Meniran (EEM) dengan parameter jumlah sel radang.

One Way Analysis of Variance

Data source: Data 1 in Notebook 7

Normality Test: Passed ($P > 0.050$)

Equal Variance Test: Passed ($P = 0.146$)

Group Name	N	Missing	Mean	Std Dev	SEM
Col 1	6	0	324.833	146.847	59.950
Col 2	6	0	203.333	64.537	26.347
Col 3	6	0	590.667	95.458	38.971
Col 4	6	0	366.167	122.405	49.972

Source of Variation	DF	SS	MS	F	P
Between Groups	3	471120.167	157040.056	12.607	<0.001
Residual	20	249122.333	12456.117		
Total	23	720242.500			

The differences in the mean values among the treatment groups are greater than would be expected by chance; there is a statistically significant difference ($P = <0.001$).

Power of performed test with $\alpha = 0.050$: 0.998

All Pairwise Multiple Comparison Procedures (Duncan's Method) :

Comparisons for factor:

Comparison	Diff of Means	p	q	P	P<0.050
Col 3 vs. Col 2	387.333	48.501	--	Yes	
Col 3 vs. Col 1	265.833	35.834	--	Yes	
Col 3 vs. Col 4	224.500	24.927	--	Yes	
Col 4 vs. Col 2	162.833	33.574	--	Yes	
Col 4 vs. Col 1	41.333	20.907	--	No	
Col 1 vs. Col 2	121.500	22.667	--	No	

Note: The P values for Dunnett's and Duncan's tests are currently unavailable except for reporting that the P's are greater or less than the critical values of .05 and .01.

RIWAYAT HIDUP

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1. SD Kesatuan, Bogor. Lulus tahun 1999
2. SMP Kesatuan, Bogor. Lulus tahun 2002
3. SMU Regina Pacis, Bogor. Lulus tahun 2005
4. Fakultas Kedokteran Universitas Kristen Maranatha, Bandung. 2005-sekarang