BAB V

KESIMPULAN DAN SARAN

A. Kesimpulan

Bedasarkan hasil penelitian dapat diambil kesimpulan :

Pertama, kombinasi ekstrak daun ceplikan dengan glibenklamid dapat menurunkan kadar glukosa darah pada tikus putih yang diinduksi aloksan.

Kedua, kombinasi glibenklamid dengan ekstrak daun ceplikan pada dosis 0,50:0,50 ; 0.75:0,25 memiliki efek yang efektif dalam menurunkan kadar glukosa darah pada tikus putih jantan yang di induksi aloksan.

Ketiga, pemberian kombinasi glibenklamid dengan ekstrak daun ceplikan mempunyai efek penurunan kadar glukosa darah yang lebih tinggi dibanding dengan pemberian ekstrak tunggal.

B. Saran

Pertama perlu dilakukan penelitian tentang efek hipoglikemik ekstrak etanol daun pletekan dengan variasi dosis yang lebih baik.

Kedua, perlu dilakukanya histopatologi untuk mengetahui profil sel beta pankreas

Ketiga, pemberian obat herbal sebagai terapi kombinasi dengan obat sintetis tidak dianjurkan untuk pemakaian secara bersamaan dan perlu selang waktu dalam pemakaian.

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Lampiran 1. Perhitungan pengeringan simplisia daun ceplikan

Perhitungan pengeringan serbuk daun ceplikan

Berat basah (g)	Berat kering (g)	Persentase (%)
5000	2140	42,8

Persentase diperoleh dengan cara :

$$\text{Persentase} = \frac{\text{Berat kering (g)}}{\text{Berat basah (g)}} \times 100\%$$

$$\text{Persentase} = \frac{2140}{5000} \times 100\ \% = 42{,}8\ \%$$

Lampiran 2. Perhitungan rata-rata susut pengeringan

Rata-rata pengeringan serbuk daun ceplikan

Bobot awal	Bobot penyusutan	Susut pengeringan
2 g	1,84 g	6,5 %
2 g	1,86 g	7.0 %
2 g	1,86 g	7,0 %
Rata-rata		6,8 %

Persentase diperoleh dengan rumus = $\frac{\text{Bobot awal (g)} - \text{Bobot sisa (g)}}{\text{Berat awal}}$ x 100%

1. $\frac{2\text{ g} - 1{,}84\text{ g}}{2}$ x 100% = 6,5 %

2. $\frac{2\text{ g} - 1{,}86\text{ g}}{2}$ x 100% = 7,0 %

3. $\frac{2\text{ g} - 1{,}86\text{ g}}{2}$ x 100% = 7,0%

Rata-rata = $\frac{6{,}5\ \% + 7{,}0\ \% + 7{,}0\ \%}{3}$ = 6,8 %

Lampiran 3. Perhitungan kadar air serbuk daun ceplikan

No	Berat serbuk (g)	Volume air (ml)	Kadar air (%)
1	20,006	1,60	7,05
2	20,014	1,70	8,04
3	20,012	1,70	8,09
Rata-rata			7,73

Persentase kadar air diperoleh dengan rumus

Kadar air = $\frac{\text{volume terbaca (ml)}}{\text{berat bahan (g)}}$ x 100 %

1. kadar air = $\frac{1,60}{20,006}$ x 100 % = 7,9 %

2. kadar air = $\frac{1,70}{20,014}$ x 100 % = 8,4 %

3. kadar air = $\frac{1,70}{20,012}$ x 100 % = 8,4 %

Rata-rata kadar air = $\frac{7,9 + 8,4 + 8,4}{3}$ = 8,23

Kadar air serbuk daun ceplikan adalah 8, 23

Lampiran 4. Perhitungan ekstrak daun ceplikan

Bahan	Serbuk (g)	Ekstrak kental (g)	Rendemen (%)
Daun ceplikan	400	100,7	25,175

Persentase diperoleh dengan cara :

Persentase = $\frac{\text{Ekstrak kenta (g)}}{\text{Berat serbuk (g)}}$ x 100 %

Persentase = $\frac{100,7}{400}$ x 100 % = 25,175 %

Lampiran 5. Perhitungan dosis

5.1. perhitungan dosis daun ceplikan

Dosis ekstrak daun ceplikan terdahulu adalah 500 mg/kg BB kelinci untuk menurunkan kadar glukosa darah (Shahwar *et al*, 2012). Pada penelitian ini menggunakan tikus sehingga dosis pada kelinci di konversikan ke dosis tikus. Faktor konfersi dari kelinci (1,5 kg) menjadi tikus (200 g) adalah 0,25.

Dosis kelinci 1,5 kg = 500 mg/kg BB x 1,5

= 750 mg/1,5 kg

Konversi ketikus 200 g = 750 x 0,25

= 187,5 mg/200 g

5.2. Dosis perbandingan ekstrak etanol daun ceplikan

Larutan stok 10% = 10 g/100 ml

= 10.000 mg/100 ml

= 100 mg/ml

Perbandingan dosis 25 % $= \frac{25}{100}$ x 187,5

= 46,875 mg/ 200 g BB tikus

Volume pemberian $= \frac{46,875}{10000}$ x 100 ml

= 0,46 ml/200 g tikus

Perbandingan dosis 50 % $= \frac{50}{100}$ x 187,5

= 93, 75 mg/ 200 g BB tikus

Volume pemberian $= \frac{93,75}{10000}$ x 100 ml

= 0,93 ml/200 g tikus

Perbandingan dosis 75 % $= \frac{75}{100}$ x 187,5

= 140,62 mg/ 200 g BB tikus

Volume pemberian $= \frac{140,62}{10000}$ x 100 ml

= 1,4 ml/200 g tikus

5.3. Perhitungan dosis glibenklamid

Dosis glibenklamid dihitung dari dosis lazim**.** Faktor konversi manusia dengan berat badan 70 kg ke tikus dengan berat badan 200 gram adalah 0,018. Dosis terapi glibenklamid untuk manusia 70 kg adalah 5 mg.

Dosis untuk tikus (rata-rata 200 g) = 5 mg x 0,018

= 0,09 mg/200 g BB tikus.

Dosis larutan stok glibenklamid 0,5%= 0,5 g/100 ml

= 500mg/100 ml

= 5 mg/ml

Dosis perbandingan glibenklamid

Perbandingan dosis 25% = $\frac{25}{100}$ x 0,09 = 0,0225 mg/200 g BB tikus

Volume pemberian = $\frac{0,0225}{5}$ x 100 ml

= 0,45 ml/200 g tikus

Perbandingan dosis 50% = $\frac{50}{100}$ x 0,09 = 0,045

Volume pemberian = $\frac{0,045}{5}$ x 100 ml

= 0,9 ml/200 g tikus

Perbandingan dosis 75% = $\frac{75}{100}$ x 0,09 = 0,0675

Volume pemberian = $\frac{0,0675}{5}$ x 100 ml = 1,35 ml/200 g tikus

5.4. Perhitungan dosis aloksan monohidrat

Dosis aloksan yang digunakan untuk membuat diabetes pada tikus adalah sebesar 100 mg/kg BB. Jadi dosis aloksan untuk tikus degan BB 200 g sebesar 100 mg/1000 g BB tikus = 20 mg/200 g BB tikus.

Larutan stok dibuat 1% = 1000 mg/100 ml

= 10 mg/ml

Volume yang diberikan = $\frac{20 \text{ mg}}{10 \text{ mg}}$ x 1 ml = 2 mg/200 g BB tikus.

Lampiran 6. Hasil pemeriksaan kadar glukosa darah

Kelompok	Kadar glukosa darah awal (mg/dl)	Kadar glukosa darah setelah diinduksi aloksan (mg/dl)	Kadar glukosa darah setelah diberikan larutan uji hari ke- (mg/dl)		Selisih kadar glukosa darah (mg/dl)	
	T_0	T_1	T_2 hari ke-7	T_3 hari ke-14	$\Delta T_1=T_1-T_2$	$\Delta T_1=T_1-T_3$
I	95	260	261	270	-1	-10
	86	256	258	264	-2	-2
	74	260	263	271	-3	-11
	80	252	261	269	-9	-17
	81	270	274	280	-6	-10
II	92	261	93	90	168	171
	81	252	87	86	165	166
	80	248	83	80	165	168
	82	257	90	83	167	174
	83	257	84	80	173	177
III	95	258	97	93	159	163
	93	260	98	92	162	168
	90	253	101	97	153	167
	83	250	99	96	146	149
	75	260	97	93	159	172
IV	94	254	95	101	159	164
	90	248	90	96	158	163
	81	262	105	103	157	164
	82	248	110	95	138	152
	76	250	102	98	148	155
V	93	252	90	83	162	167
	90	258	87	80	171	174
	82	249	93	80	156	173
	73	252	95	90	157	155
	76	250	95	85	155	177
VI	90	258	95	85	163	173
	87	260	90	86	170	174
	79	253	85	80	168	173
	85	250	96	95	154	155
	75	260	85	83	175	177

Keterangan :
Kelompok I : kontrol negatif (CMC)
Kelompok II : Kontrol positif (Glibenklamid)
Kelompok III : Ekstrak daun ceplikan
Kelompok IV : Kombinasi glibenklamid- ekstrak ceplikan (0,25 : 0,75)
Kelompok V : Kombinasi glibenklamid-ekstrak ceplikan (0,50 : 0,50)
Kelompok VI : Kombinasi glibenklamid-ekstrak ceplikan (0,75 : 0,25)
T_0 : Kadar glukosa darah awal (mg/dl)
T_1 : Kadar glukosa darah setelah diinduksi aloksan (mg/dl)
T_2 : Kadar glukosa darah setelah diberikan larutan uji hari ke-7 (mg/dl)
T_3 : Kadar glukosa darah setelah diberikan larutan uji hari ke-14 (mg/dl)

Lampiran 7. Surat keterangan determinasi

UNIVERSITAS SETIA BUDI

UPT- LABORATORIUM

No : 120/DET/UPT-LAB/02/IV/2014
Hal : Surat Keterangan Determinasi Tumbuhan

Menerangkan bahwa :
Nama : Bunga Yunia Sakti
NIM : 16102869 A
Fakultas : Farmasi Universitas Setia Budi

Telah mendeterminasikan tumbuhan : **Pletekan (*Ruellia tuberosa* L.)**

Hasil determinasi berdasarkan : Steenis : FLORA

1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 14b – 16a – 239b – 243b – 244b – 248b – 249b – 250a – 251b – 253b – 254b – 255b – 256a – 257b – 259b – 260a. familia 115. Acanthaceae. 1a – 2a – 3a – 4a.3. Ruellia. ***Ruellia tuberosa* L.**

Deskripsi :

Habitus : Herba, tinggi dapat mencapai 0,9 m.

Batang : Segiempat tumpul, tegak, pangkal sedikit berbaring, masif, hijau.

Daun : Tunggal, berhadapan bersilang, bentuk memanjang hingga bulat telur terbalik, ujung membulat, pangkal berangsur runcing, tepi bergigi, gundul, panjang 6 – 13 cm, lebar 3,5 – 7,5 cm, licin, tulang daun menyirip, hijau.

Bunga : Majemuk, payung, di ketiak daun, terdiri dari 1 – 5 bunga, kelopak hijau, mahkota bunga ungu, daun mahkota berlekatan, panjang 5 – 6 cm, benangsari melekat pada tabung.

Buah : Kotak, lonjong, gundul, kering, berbiji banyak, panjang 2 – 3 cm, membuka dengan 2 katup.

Biji : Bulat, kecil, coklat, tiap ruang 2 - 20.

Akar : Tunggang, membentuk umbi, coklat.

Pustaka : Steenis C.G.G.J., Bloembergen S. Eyma P.J. (1978): *FLORA*, PT Pradnya Paramita. Jl. Kebon Sirih 46. Jakarta Pusat, 1978.

Surakarta, 02 April 2014
Tim determinasi

Dra.Kartinah Wiryosoendjojo, SU.

Jl. Let.jen Sutoyo, Mojosongo-Solo 57127 Telp.0271-852518, Fax.0271-853275
Homepage : www.setiabudi.ac.id, e-mail : info@setiabudi.ac.id

Lampiran 8. Surat keterangan hewan uji

"ABIMANYU FARM"

√ Mencit putih jantan √ Tikus Wistar √ Swis Webster √ Cacing
√ Mencit Balb/C √ Kelinci New Zaeland

Ngampon RT 04 / RW 04. Mojosongo Kec. Jebres Surakarta. Phone 085 629 994 33 / Lab USB Ska

Yang bertanda tangan di bawah ini:
Nama : Sigit Pramono

Selaku pengelola Abimanyu Farm, menerangkan bahwa hewan uji yang digunakan untuk penelitian, oleh:

Nama	: Bunga Yunia Sakti
Nim	: 16102869 A
Institusi	: Universitas Setia Budi Surakarta

Merupakan hewan uji dengan spesifikasi sebagai berikut:

Jenis hewan	: Tikus Wistar
Umur	: 2-3 bulan
Jenis kelamin	: Jantan
Jumlah	: 30
Keterangan	: Sehat
Asal-usul	: Unit Pengembangan Hewan Percobaan UGM Yogyakarta

Yang pengembangan dan pengelolaannya disesuaikan standar baku penelitian. Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Surakarta, 22 Mei 2014
Hormat kami

Sigit Pramono
"ABIMANYU FARM"

Lampiran 9. Foto

Tanaman ceplikan

Simplisia kering daun ceplikan

Serbuk daun ceplikan

Ekstrak daun ceplikan

Larutan CMC

Larutan ekstrak ceplikan

Larutan glibenklamid

Larutan aloksan monohidrat

Mosture Balance

Sterlling Bidwel

vacum

Evaporasi daun ceplikan

Glukometer

Pemeliharaan hewan uji

Pemeriksaan kadar glukosa darah

Pemberian larutan secara oral

Flavonoid pada serbuk daun ceplikan

Saponin pada serbuk daun ceplikan

Tanin pada serbuk daun ceplikan

Flavonoid pada ekstrak daun ceplikan

Saponin pada ekstrak daun ceplikan

Tanin pada ekstrak daun ceplikan

Lampiran 10. Hasil analisa data pengukuran kadar glukosa darah tikus

HASIL ANALISA DATA T_7 DAN T_{14} KRUSKAL-WALLIS DAN MANN-WHITNEY TEST

DATA T_7

NPar Test

Kadar glukosa darah hari ke-7

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
kadar glukosa darah	30	121.97	64.668	83	274

One-Sample Kolmogorov-Smirnov Test

		kadar glukosa darah
N		30
Normal Parameters[a,,b]	Mean	121.97
	Std. Deviation	64.668
Most Extreme Differences	Absolute	.407
	Positive	.407
	Negative	-.273
Kolmogorov-Smirnov Z		2.228
Asymp. Sig. (2-tailed)		.000

a. Test distribution is Normal.

b. Calculated from data.

NPar Test

T_7

Kruskal-Wallis Test

Ranks

	kelompok	N	Mean Rank
kadar glukosa darah	CMC	5	28.00
	Glibenklamid	5	5.70
	ekstrak ceplikan	5	20.00
	25% gliben : 75% ekstrak	5	19.00
	50% gliben : 50% ekstrak	5	10.90
	75% gliben : 25% ekstrak	5	9.40
	Total	30	

Test Statistics[a,b]

	kadar glukosa darah
Chi-Square	22.263
df	5
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid Tunggal

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	Glibenklamid	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Ekstrak Ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	ekstrak ceplikan	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

]

NPar Tests
CMC : Glibenklamid-Ekstrak (25% : 75%)
Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	25% gliben : 75% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid-Ekstrak (50% : 50%)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	50% gliben : 50% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid-Ekstrak (75% : 25%)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	75% gliben : 25% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid :ekstrak daun ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	3.00	15.00
	ekstrak ceplikan	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : glibenklamid-ekstrak (25%:75%)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	3.30	16.50
	25% gliben : 75% ekstrak	5	7.70	38.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	1.500
Wilcoxon W	16.500
Z	-2.305
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.016[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : glibenklamid-ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	3.90	19.50
	50% gliben : 50% ekstrak	5	7.10	35.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	4.500
Wilcoxon W	19.500
Z	-1.692
Asymp. Sig. (2-tailed)	.091
Exact Sig. [2*(1-tailed Sig.)]	.095[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : glibenklamid-ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	4.50	22.50
	75% gliben : 25% ekstrak	5	6.50	32.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	7.500
Wilcoxon W	22.500
Z	-1.051
Asymp. Sig. (2-tailed)	.293
Exact Sig. [2*(1-tailed Sig.)]	.310[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : glibenklamid-ekstrak (0,25:0,75)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	ekstrak ceplikan	5	5.00	25.00
	25% gliben : 75% ekstrak	5	6.00	30.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	10.000
Wilcoxon W	25.000
Z	-.524
Asymp. Sig. (2-tailed)	.600
Exact Sig. [2*(1-tailed Sig.)]	.690[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : glibenklamid-ekstrak (0,50:0,50)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	ekstrak ceplikan	5	8.00	40.00
	50% gliben : 50% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : glibenklamid-ekstrak (0,75 : 0,25)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	ekstrak ceplikan	5	8.00	40.00
	75% gliben : 25% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid: ekstrak (0,25 : 0,75) : Glibenklamid-ekstrak (0,50:0,50)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	25% gliben : 75% ekstrak	5	7.10	35.50
	50% gliben : 50% ekstrak	5	3.90	19.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	4.500
Wilcoxon W	19.500
Z	-1.697
Asymp. Sig. (2-tailed)	.090
Exact Sig. [2*(1-tailed Sig.)]	.095[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid-ekstrak (0,25:0,75) : Glibenklamid-ekstrak (0,75:0,25)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	25% gliben : 75% ekstrak	5	7.20	36.00
	75% gliben : 25% ekstrak	5	3.80	19.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	4.000
Wilcoxon W	19.000
Z	-1.792
Asymp. Sig. (2-tailed)	.073
Exact Sig. [2*(1-tailed Sig.)]	.095[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid-ekstrak (0,50:0,50) : Glibenklamid-ekstrak (0,75 : 0,25)

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	50% gliben : 50% ekstrak	5	5.90	29.50
	75% gliben : 25% ekstrak	5	5.10	25.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	10.500
Wilcoxon W	25.500
Z	-.426
Asymp. Sig. (2-tailed)	.670
Exact Sig. [2*(1-tailed Sig.)]	.690[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

DATA T_{14}

NPar Test

Kadar glukosa darah hari ke-14

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
kadar glukosa darah	30	121.97	64.668	83	274

One-Sample Kolmogorov-Smirnov Test

		kadar glukosa darah
N		30
Normal Parameters[a,,b]	Mean	121.97
	Std. Deviation	64.668
Most Extreme Differences	Absolute	.407
	Positive	.407
	Negative	-.273
Kolmogorov-Smirnov Z		2.228
Asymp. Sig. (2-tailed)		.000

a. Test distribution is Normal.

b. Calculated from data.

NPar Test

T_{14}

Kruskal-Wallis Test

Ranks

	kelompok	N	Mean Rank
kadar glukosa darah	CMC	5	28.00
	Glibenklamid	5	5.70
	ekstrak ceplikan	5	20.00
	25% gliben : 75% ekstrak	5	19.00
	50% gliben : 50% ekstrak	5	10.90
	75% gliben : 25% ekstrak	5	9.40
	Total	30	

Test Statistics[a,b]

	kadar glukosa darah
Chi-Square	22.263
df	5
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	Glibenklamid	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Ekstrak ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	ekstrak ceplikan	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : glibenklamid-ekstrak (0,25:0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	25% gliben : 75% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.611
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : glibenklamid-ekstrak (0,50:0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	50% gliben : 50% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : glibenklamid-ekstrak (0,75:0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	8.00	40.00
	75% gliben : 25% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.611
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : ekstrak ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	3.00	15.00
	ekstrak ceplikan	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : glibenklamid-ekstrak (0,25:0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	3.30	16.50
	25% gliben : 75% ekstrak	5	7.70	38.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	2.500
Wilcoxon W	17.500
Z	-2.102
Asymp. Sig. (2-tailed)	.036
Exact Sig. [2*(1-tailed Sig.)]	.032[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : glibenklamid-ekstrak (0,50:0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	5.50	27.50
	50% gliben : 50% ekstrak	5	5.50	27.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	12.500
Wilcoxon W	27.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid : glibenklamid-ekstrak (0,75:0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	5.00	25.00
	75% gliben : 25% ekstrak	5	6.00	30.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	10.000
Wilcoxon W	25.000
Z	-.532
Asymp. Sig. (2-tailed)	.595
Exact Sig. [2*(1-tailed Sig.)]	.690[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : glibenklamid-ekstrak (0,25:0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	ekstrak ceplikan	5	5.70	28.50
	25% gliben : 75% ekstrak	5	5.30	26.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	11.500
Wilcoxon W	26.500
Z	-.210
Asymp. Sig. (2-tailed)	.834
Exact Sig. [2*(1-tailed Sig.)]	.841[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : glibenklamid-ekstrak (0,50:0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	ekstrak ceplikan	5	8.00	40.00
	50% gliben : 50% ekstrak	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.635
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : glibenklamid-ekstrak (0,75:0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	ekstrak ceplikan	5	7.40	37.00
	75% gliben : 25% ekstrak	5	3.60	18.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	3.000
Wilcoxon W	18.000
Z	-1.991
Asymp. Sig. (2-tailed)	.047
Exact Sig. [2*(1-tailed Sig.)]	.056[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

glibenklamid-ekstrak (0,25:0,75) : glibenklamid-ekstrak (0,50:0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	25% gliben : 75% ekstrak	5	7.50	37.50
	50% gliben : 50% ekstrak	5	3.50	17.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	2.500
Wilcoxon W	17.500
Z	-2.128
Asymp. Sig. (2-tailed)	.033
Exact Sig. [2*(1-tailed Sig.)]	.032[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

glibenklamid-ekstrak (0,25:0,75) : glibenklamid-ekstrak (0,75:0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	25% gliben : 75% ekstrak	5	7.20	36.00
	75% gliben : 25% ekstrak	5	3.80	19.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	4.000
Wilcoxon W	19.000
Z	-1.786
Asymp. Sig. (2-tailed)	.074
Exact Sig. [2*(1-tailed Sig.)]	.095[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

glibenklamid-ekstrak (0,50:0,50) : glibenklamid-ekstrak (0,75:0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	50% gliben : 50% ekstrak	5	5.00	25.00
	75% gliben : 25% ekstrak	5	6.00	30.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	10.000
Wilcoxon W	25.000
Z	-.535
Asymp. Sig. (2-tailed)	.592
Exact Sig. [2*(1-tailed Sig.)]	.690[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

HASIL ANALISA DATA ΔT_1 DAN ΔT_2 KRUSKAL-WALLIS DAN MANN-WHITNEY TEST

DATA ΔT_1 = T1 – T2

NPar Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
kadar glukosa darah	30	132.90	62.877	-9	175

One-Sample Kolmogorov-Smirnov Test

		kadar glukosa darah
N		30
Normal Parameters[a,,b]	Mean	132.90
	Std. Deviation	62.877
Most Extreme Differences	Absolute	.383
	Positive	.252
	Negative	-.383
Kolmogorov-Smirnov Z		2.095
Asymp. Sig. (2-tailed)		.000

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

Kruskal-Wallis Test

Ranks

	kelompok	N	Mean Rank
kadar glukosa darah	CMC	5	3.00
	Glibenklamid	5	24.70
	Ekstrak ceplikan	5	13.90
	Glibenklamid-ekstrak (0,25:0,75)	5	11.90
	Glibenklamid-ekstrak (0,50:0,50)	5	16.80
	Glibenklamid-ekstrak (0,75:0,25)	5	22.70
	Total	30	

Test Statistics[a,b]

	kadar glukosa darah
Chi-Square	20.032
df	5
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Ekstrak ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Ekstrak ceplikan	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid-ekstrak (0,25 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid-ekstrak (0,25:0,75)	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.611
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

CMC : Glibenklamid- ekstrak (0,50 :0,50)
Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid-ekstrak (0,50:0,50)	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.611
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
CMC : Glibenklamid- ekstrak (0,75 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid-ekstrak (0,75:0,25)	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.611
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : ekstrak daun ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	8.00	40.00
	Ekstrak ceplikan	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Glibenklamid- ekstrak (0,25 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	8.00	40.00
	Glibenklamid-ekstrak (0,25:0,75)	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Glibenklamid- ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	7.20	36.00
	Glibenklamid-ekstrak (0,50:0,50)	5	3.80	19.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	4.000
Wilcoxon W	19.000
Z	-1.781
Asymp. Sig. (2-tailed)	.075
Exact Sig. [2*(1-tailed Sig.)]	.095[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	5.50	27.50
	Glibenklamid-ekstrak (0,75:0,25)	5	5.50	27.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	12.500
Wilcoxon W	27.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Ekstrak ceplikan : Glibenklamid- ekstrak (0,25 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Ekstrak ceplikan	5	6.40	32.00
	Glibenklamid-ekstrak (0,25:0,75)	5	4.60	23.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	8.000
Wilcoxon W	23.000
Z	-.952
Asymp. Sig. (2-tailed)	.341
Exact Sig. [2*(1-tailed Sig.)]	.421[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Ekstrak ceplikan : Glibenklamid- ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Ekstrak ceplikan	5	4.90	24.50
	Glibenklamid-ekstrak (0,50:0,50)	5	6.10	30.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	9.500
Wilcoxon W	24.500
Z	-.631
Asymp. Sig. (2-tailed)	.528
Exact Sig. [2*(1-tailed Sig.)]	.548[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Ekstrak ceplikan : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Ekstrak ceplikan	5	3.60	18.00
	Glibenklamid-ekstrak (0,75:0,25)	5	7.40	37.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	3.000
Wilcoxon W	18.000
Z	-1.991
Asymp. Sig. (2-tailed)	.047
Exact Sig. [2*(1-tailed Sig.)]	.056[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests

Glibenklamid- ekstrak (0,25 :0,75) : Glibenklamid- ekstrak (0,50 :0,50)
Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid-ekstrak (0,75:0,25)	5	4.70	23.50
	Glibenklamid-ekstrak (0,50:0,50)	5	6.30	31.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	8.500
Wilcoxon W	23.500
Z	-.838
Asymp. Sig. (2-tailed)	.402
Exact Sig. [2*(1-tailed Sig.)]	.421[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid- ekstrak (0,25 :0,75) : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid-ekstrak (0,25:0,75)	5	3.60	18.00
	Glibenklamid-ekstrak (0,75:0,25)	5	7.40	37.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	3.000
Wilcoxon W	18.000
Z	-1.984
Asymp. Sig. (2-tailed)	.047
Exact Sig. [2*(1-tailed Sig.)]	.056[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid- ekstrak (0,50 :0,50) : Glibenklamid- ekstrak (0,75 :0,25)
Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid-ekstrak (0,50:0,50)	5	4.60	23.00
	Glibenklamid-ekstrak (0,75:0,25)	5	6.40	32.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	8.000
Wilcoxon W	23.000
Z	-.940
Asymp. Sig. (2-tailed)	.347
Exact Sig. [2*(1-tailed Sig.)]	.421[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

DATA ΔT_2 = T1-T3

NPar Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
kadar glukosa darah	30	137.20	67.357	-17	178

One-Sample Kolmogorov-Smirnov Test

		kadar glukosa darah
N		30
Normal Parameters[a,,b]	Mean	137.20
	Std. Deviation	67.357
Most Extreme Differences	Absolute	.403
	Positive	.272
	Negative	-.403
Kolmogorov-Smirnov Z		2.207
Asymp. Sig. (2-tailed)		.000

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

Kruskal-Wallis Test

Ranks

	kelompok	N	Mean Rank
kadar glukosa darah	CMC	5	3.00
	Glibenklamid	5	22.50
	Ekstrak ceplikan	5	15.50
	Glibenklamid-ekstrak (0,25:0,75)	5	10.80
	Glibenklamid-ekstrak (0,50:0,50)	5	18.70
	Glibenklamid-ekstrak (0,75:0,25)	5	22.50
	Total	30	

Test Statistics[a,b]

	kadar glukosa darah
Chi-Square	18.526
df	5
Asymp. Sig.	.002

a. Kruskal Wallis Test

b. Grouping Variable: kelompok

NPar Tests
CMC : Glibenklamid

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
CMC : Ekstrak ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Ekstrak ceplikan	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
CMC : Glibenklamid- ekstrak (0,25 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid-ekstrak (0,25:0,75)	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
CMC ; Glibenklamid- ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid-ekstrak (0,50:0,50)	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
CMC : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	CMC	5	3.00	15.00
	Glibenklamid-ekstrak (0,75:0,25)	5	8.00	40.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.627
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Ekstrak ceplikan

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	6.90	34.50
	Ekstrak ceplikan	5	4.10	20.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	5.500
Wilcoxon W	20.500
Z	-1.467
Asymp. Sig. (2-tailed)	.142
Exact Sig. [2*(1-tailed Sig.)]	.151[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Glibenklamid- ekstrak (0,25 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	8.00	40.00
	Glibenklamid-ekstrak (0,25:0,75)	5	3.00	15.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Glibenklamid- ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	6.40	32.00
	Glibenklamid-ekstrak (0,50:0,50)	5	4.60	23.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	8.000
Wilcoxon W	23.000
Z	-.940
Asymp. Sig. (2-tailed)	.347
Exact Sig. [2*(1-tailed Sig.)]	.421[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid	5	5.20	26.00
	Glibenklamid-ekstrak (0,75:0,25)	5	5.80	29.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	11.000
Wilcoxon W	26.000
Z	-.316
Asymp. Sig. (2-tailed)	.752
Exact Sig. [2*(1-tailed Sig.)]	.841[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Ekstrak ceplikan : Glibenklamid- ekstrak (0,25 :0,75)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Ekstrak ceplikan	5	6.50	32.50
	Glibenklamid-ekstrak (0,25:0,75)	5	4.50	22.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	7.500
Wilcoxon W	22.500
Z	-1.051
Asymp. Sig. (2-tailed)	.293
Exact Sig. [2*(1-tailed Sig.)]	.310[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Ekstak ceplikan : Glibenklamid- ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Ekstrak ceplikan	5	5.10	25.50
	Glibenklamid-ekstrak (0,50:0,50)	5	5.90	29.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	10.500
Wilcoxon W	25.500
Z	-.419
Asymp. Sig. (2-tailed)	.675
Exact Sig. [2*(1-tailed Sig.)]	.690[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Ekstrak ceplikan : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Ekstrak ceplikan	5	3.80	19.00
	Glibenklamid-ekstrak (0,75:0,25)	5	7.20	36.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	4.000
Wilcoxon W	19.000
Z	-1.781
Asymp. Sig. (2-tailed)	.075
Exact Sig. [2*(1-tailed Sig.)]	.095[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid- ekstrak (0,25 :0,75) : Glibenklamid- ekstrak (0,50 :0,50)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid-ekstrak (0,25:0,75)	5	3.60	18.00
	Glibenklamid-ekstrak (0,50:0,50)	5	7.40	37.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	3.000
Wilcoxon W	18.000
Z	-1.991
Asymp. Sig. (2-tailed)	.047
Exact Sig. [2*(1-tailed Sig.)]	.056[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid- ekstrak (0,25 :0,75) : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid-ekstrak (0,25:0,75)	5	3.70	18.50
	Glibenklamid-ekstrak (0,75:0,25)	5	7.30	36.50
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	3.500
Wilcoxon W	18.500
Z	-1.897
Asymp. Sig. (2-tailed)	.058
Exact Sig. [2*(1-tailed Sig.)]	.056[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

NPar Tests
Glibenklamid- ekstrak (0,50 :0,50) : Glibenklamid- ekstrak (0,75 :0,25)

Mann-Whitney Test

Ranks

	kelompok	N	Mean Rank	Sum of Ranks
kadar glukosa darah	Glibenklamid-ekstrak (0,50:0,50)	5	4.80	24.00
	Glibenklamid-ekstrak (0,75:0,25)	5	6.20	31.00
	Total	10		

Test Statistics[b]

	kadar glukosa darah
Mann-Whitney U	9.000
Wilcoxon W	24.000
Z	-.733
Asymp. Sig. (2-tailed)	.463
Exact Sig. [2*(1-tailed Sig.)]	.548[a]

a. Not corrected for ties.

b. Grouping Variable: kelompok

Kesimpulan SPSS

Kolmogorov-Smirnov Test :

Data	Hasil
T1	Tidak terdistribusi normal
T2	Tidak terdistribusi normal
ΔT1	Tidak terdistribusi normal
ΔT2	Tidak terdistribusi normal

Kruskal-Wallis Test :

Data	Hasil
T1	Ada perbedaan
T2	Ada perbedaan
ΔT1	Ada perbedaan
ΔT2	Ada perbedaan

Mann-Whitney Test :

Perbandingan		T7	T14	**Δ**T1	**Δ**T2
CMC	Glibenklamid	–	–	–	–
	Ekstrak daun ceplikan	–	–	–	–
	Glibenklamid-ekstrak (0,25:0,75)	–	–	–	–
	Glibenklamid-ekstrak (0,50:0,50)	–	–	–	–
	Glibenklamid-ekstrak (0,75:0,25)	–	–	–	–
Glibenklamid	Ekstrak daun ceplikan	–	–	–	√
	Glibenklamid-ekstrak (0,25:0,75)	–	–	–	–
	Glibenklamid-ekstrak (0,50:0,50)	√	√	√	√
	Glibenklamid-ekstrak (0,75:0,25)	√	√	√	√
Ekstrak ceplikan	Glibenklamid-ekstrak (0,25:0,75)	√	√	√	√
	Glibenklamid-ekstrak (0,50:0,50)	–	–	√	√

	Glibenklamid-ekstrak (0,75:0,25)	_	_	√	√
Glibenklamid-ekstrak (0,25:0,75)	Glibenklamid-ekstrak (0,50:0,50)	√	_	√	√
Glibenklamid-ekstrak (0,25:0,75)	Glibenklamid-ekstrak (0,75:0,25)	√	√	√	√
Glibenklamid-ekstrak (0,50:0,50)	Glibenklamid-ekstrak (0,75:0,25)	√	√	√	√

H0 Diterima (Tidak ada beda) = √ H0 Ditolak (Ada beda) = -