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LAMPIRAN

Lampiran 1. Persetujuan Etik Penelitian

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN KESEHATAN
RSPTN UNIVERSITAS HASANUDDIN
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REKOMENDASI PERSETUJUAN ETIK
Nomor : 701/UN4.6.4.5.31/ PP36/ 2020

Tanggal: 27 Oktober 2020

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

No Protokol	UH20090494	No Sponsor Protokol	
Peneliti Utama	**dr. Arlina Wiyata Gama, S.Ked**	Sponsor	
Judul Peneliti	Perna Metformin sebagai Restriksi Kalori Mimetik Dalam Kadar Gula Darah Dan Kadar Serum IGF-1 Pada Tikus Tua		
No Versi Protokol	**2**	Tanggal Versi	24 Oktober 2020
No Versi PSP		Tanggal Versi	
Tempat Penelitian	**Laboratorium Entomologi FKUH dan Laboratorium HUMRC RS Universitas Hasanuddin Makassar**		
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard Tanggal	Masa Berlaku **27 Oktober 2020** sampai **27 Oktober 2021**	Frekuensi review lanjutan
Ketua Komisi Etik Penelitian Kesehatan FKUH	Nama **Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)**	Tanda tangan	
Sekretaris Komisi Etik Penelitian Kesehatan FKUH	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 prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

Lampiran 2. Tabel Konversi Dosis Hewan

Tabel 12. Konversi dosis antara berbagai jenis hewan dan Manusia
(Laurence and Bacharach, 1964)

	Mencit 20 gr	Tikus 200 gr	Marmut 400 gr	Kelinci 1,2 kg	Kera 4 kg	Anjing 12 kg	Manusia 70 kg
Mencit 20 gr	1,0	7,0	12,25	27,8	64,1	124,2	387,9
Tikus 200 gr	0,14	1,0	1,74	0,39	9,2	17,8	56,0
Marmut 400 gr	0,08	0,57	1,0	2,25	5,2	10,2	31,5
Kelinci 1,2 kg	0,04	0,25	0,44	1,0	2,4	4,5	14,2
Kera 4 kg	0,016	0,11	0,19	0,42	1,0	1,9	6,1
Anjing 12 kg	0,008	0,06	0,10	0,22	0,52	1,0	3,1
Manusia 70 kg	0,0026	0,018	0,031	0,07	0,16	0,32	1,0

Lampiran 3. Tabel Maksimum Larutan Sediaan Uji Untuk Hewan

Tabel 13. Volume Maksimum Larutan Sediaan Uji yang Dapat Diberikan pada Beberapa Hewan Uji (RItschel, 1974)

Jenis Hewan Uji	**Volume maksimum (ml) sesuai jalur pemberian**				
	i.v.	**i.m.**	**i.p.**	**s.c.**	**p.o.**
Mencit (20-30 gr)	0,5	0,05	1,0	0,5-1,0	1,0
Tikus (200 gr)	1,0	0,1	2-5	2,5	5,0
Hamster (50 gr)	-	0,1	1-2	2,5	2,5
Marmut (250 gr)	-	0,25	2-5	5,0	10,0
Kelinci (2,5 kg)	5-10	0,5	10-20	5-10	20,0
Kucing (3 kg)	5-10	1,0	10-20	5-10	50,0
Anjing (5 kg)	10-20	5,0	20-50	10,0	100,0

Lampiran 4. Perhitungan Dosis Metformin

Perhitungan dosis Metformin yang akan diberikan pada tikus secara per oral (p.o.)

- Tiap tablet Metformin mengandung 500 mg Metformin-HCl
- Dosis maksimum untuk manusia dewasa = 500 mg – 3000 mg
- Konversi dosis manusia (70 kg) ke dosis untuk hewan uji 'Tikus' dikali 0,018
- Syarat volume maksimum larutan sediaan uji yang diberikan pada hewan uji tikus (200 gr) secara per oral (p.o.) adalah 5,0 ml

a. Berapa dosis Metformin (dalam mg/KgBB) untuk tikus?
   - Dosis Metformin untuk tikus (200gr)
     = (500 mg – 3000 mg) x 0,018
     = 9 mg – 54 mg
   - Menurut FI edisi III, penentapan kadar tablet = 20 tablet, maka diambil tablet metformin, digerus dan ditimbang berat totalnya = 11934 mg
   - Berat bahan aktif Metformin-HCl dalam 20 tablet metformin adalah = 500 mg/tab x 20 tab = 10.000 mg
   - Dosis Metformin-HCl untuk tikus (200 g) = 9 mg – 54 mg, maka dosis Metformin-HCl yang digunakan 10 mg untuk tikus 200 gr.
   - Jadi, dosis (mg/kgBB) → $\frac{10\ mg}{200\ gr} = \frac{x}{1\ kg}$

     $x = \frac{10\ mg}{200\ gr} \times 1\ kg = 50\ mg$

   →maka, dosis Metformin-HCl = 50 mg/kgBB

   - Jumlah serbuk metformin yang diambil untuk dosis 50 mg/kgBB

$$\frac{50\ mg/kgBB}{10.000\ mg} = \frac{x}{11.934\ mg}$$

x = 59,67 mg/KgBB ~ 60 mg/kgBB

→jadi dalam 60 mg serbuk Metformin mengandung 50 mg Metformin-HCl

b. Berapa jumlah dan volume suspensi Metformin yang diberikan untuk tikus?

- Pembuatan suspense metformin

  Ambil 60 mg serbuk metformin dilarutkan dalam 5 ml suspense air

- Contoh : BB Tikus = 210 gr

  Jumlah serbuk metformin yang diberikan

  = 60 mg/kgBB x 210 gr

  = 12,6 mg

  Volume larutan yang diberi = $\frac{12{,}6\ mg}{60\ mg/5\ ml}$ = 0,9 ml

Lampiran 5. Komposisi Pakan

Tabel 14. Komposisi Pakan AD II

Bahan-Bahan Campuran	Jumlah (%) dalam 1000 gram
Air	13
Protein	18,5 – 20,5
Lemak	4
Serat	6
Abu	8
Kalsium	0,9
Posfor	0,7
Metabolisme Energy (M.E)	3100 – 3200 Kkal/kg

Tabel 15. Komposisi Pakan Van der Voer

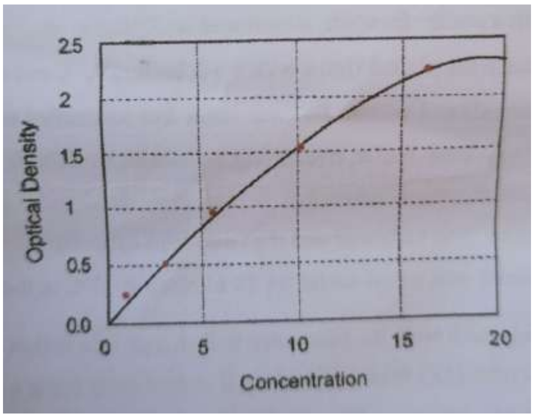
Bahan-Bahan Campuran	Jumlah (%) dalam 1000 gram
Protein	20
Lemak	7
Serat	15-20
Kalsium	1
Fosfor	0,8
Kadar air	12
Karbohidrat	60

Lampiran 6. Kotak ELISA IGF-1

	1	2	3	4	5	6	7	8	9	10	11	12
A	S_1	A_3	B_5	C_6	D_7	B_1	C_3	D_5	A_6	C_1	D_3	S_1
B	S_2	A_4	B_6	C_7	A_1	B_2	C_4	D_6	A_7	C_2	D_4	S_2
C	S_3	A_5	B_7	D_1	A_2	B_4	C_5	D_7	B_1	C_3	D_5	S_3
D	S_4	A_6	C_1	D_2	A_3	B_5	C_6	A_1	B_2	C_4	D_6	S_4
E	S_5	A_7	C_2	D_3	A_4	B_6	D_1	A_2	B_4	C_5	D_7	S_5
F	Blank	B_1	C_3	D_4	A_5	B_7	D_2	A_3	B_5	C_6		Blank
G	A_1	B_2	C_4	D_5	A_6	C_1	D_3	A_4	B_6	D_1		
H	A_2	B_4	C_5	D_6	A_7	C_2	D_4	A_5	B_7	D_2		

Keterangan :

- (merah muda) : Serum darah akhir aklimatisasi (H-0)
- (ungu) : Serum darah tengah perlakuan (H-15)
- (biru) : Serum darah akhir perlakuan (H-30)



Gambar 10. Kurva Standar ELISA

Lampiran 7. Data Hasil Penelitian

Tabel 16. Data Berat Badan, Kadar Glukosa Darah dan Kadar Serum IGF-1 Tikus Putih Jantan Galur Wistar

Kelompok		Berat Badan (gram)			Kadar Glukosa (mg/dl)			Kadar IGF-1 (ng/ml)		
		Hari 0	Hari 15	Hari 30	Hari 0	Hari 15	Hari 30	Hari 0	Hari 15	Hari 30
Kontrol	1	276	293	314	73	116	112	6,08	7,52	7,76
	2	275	276	292	59	106	123	4,91	5,53	5,99
	3	259	242	269	108	129	158	7,89	7,45	9,77
	4	261	273	298	95	122	129	6,45	7,38	7,48
	5	241	256	276	114	129	157	8,09	8,63	9,78
	6	271	286	295	121	138	172	8,22	9,11	9,56
Resktriksi Kalori	1	306	287	275	117	109	97	10,62	12,28	14,65
	2	308	288	280	123	102	99	8,59	9,25	14,01
	3	303	283	274	92	88	69	13,67	10,99	16,77
	4	290	276	267	105	92	77	9,67	10,38	12,87
	5	291	278	269	118	99	96	10,34	10,57	14,31
	6	272	264	251	111	93	84	9,19	15,23	12,74
Metformin	1	333	325	316	120	108	93	4,77	6,94	8,43
	2	320	314	307	107	98	92	5,56	7,95	8,96
	3	280	273	263	118	110	98	8,56	12,58	12,89
	4	317	302	290	119	116	105	10,12	13,46	14,03
	5	300	280	275	109	121	96	9,44	10,68	13,12
	6	315	304	294	105	98	81	9,71	12,21	13,91

Lampiran 8. Uji Normalitas dan Uji Homogenitas

Tabel 17. Box's test of Equality of covariance matrices

Box'sM	18.994
F	1.108
df1	12
df2	1.090.385
Sig.	.349

Tabel 18. Uji Normalitas Selisih Perubahan Berat Badan, Kadar Glukosa Darah dan Kadar Serum IGF-1 Tikus Putih Jantan Galur Wistar

Kelompok	Parameter		
	Berat Badan	Kadar Glukosa Darah	Kadar Serum IGF-1
Kontrol (K)	.295	.839	.419
Restriksi (P1)	.340	.789	.824
Metformin (P2)	.721	.371	.828

Keterangan : uji Saphiro-Wilk

Tabel 19. Uji Homogenitas Selisih Perubahan Berat Badan, Kadar Glukosa Darah dan Kadar Serum IGF-1 Tikus Putih Jantan Galur Wistar

Parameter	F	df1	df2	Sig.
Berat Badan	7,434	2	15	.006
Kadar Glukosa Darah	3,803	2	15	.046
Kadar Serum IGF-1	1.647	2	15	.226

Keterangan : Levene's Test of Equality of Error Variances

Lampiran 9. Uji Univariate MANOVA

1. Berat Badan

Between-Subjects Factors

		Value Label	N
Kelompok	1	Kelompok Kontrol	6
	2	Kelompok Restriksi	6
	3	Kelompok Metformin	6

Descriptive Statistics

Dependent Variable: Berat_Badan

Kelompok	Mean	Std. Deviation	N
Kelompok Kontrol	26.83	11.686	6
Kelompok Restriksi	-25.67	4.179	6
Kelompok Metformin	-20.00	5.329	6
Total	-6.28	25.293	18

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Berat_Badan

F	df1	df2	Sig.
7.434	2	15	.006

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Kelompok

Tests of Between-Subjects Effects

Dependent Variable: Berat_Badan

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	9963.444[a]	2	4981.722	81.921	.000
Intercept	709.389	1	709.389	11.665	.004
Kelompok	9963.444	2	4981.722	81.921	.000
Error	912.167	15	60.811		
Total	11585.000	18			
Corrected Total	10875.611	17			

a. R Squared = .916 (Adjusted R Squared = .905)

2. Kadar Glukosa

Between-Subjects Factors

		Value Label	N
Kelompok	1	Kelompok Kontrol	6
	2	Kelompok Restriksi	6
	3	Kelompok Metformin	6

Descriptive Statistics

Dependent Variable: Kadar_Glukosa_Darah

Kelompok	Mean	Std. Deviation	N
Kelompok Kontrol	46.83	10.610	6
Kelompok Restriksi	-24.00	3.033	6
Kelompok Metformin	-18.83	5.776	6
Total	1.33	33.858	18

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Kadar_Glukosa_Darah

F	df1	df2	Sig.
3.803	2	15	.046

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Kelompok

Tests of Between-Subjects Effects

Dependent Variable: Kadar_Glukosa_Darah

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18712.333[a]	2	9356.167	180.931	.000
Intercept	32.000	1	32.000	.619	.444
Kelompok	18712.333	2	9356.167	180.931	.000
Error	775.667	15	51.711		
Total	19520.000	18			
Corrected Total	19488.000	17			

a. R Squared = .960 (Adjusted R Squared = .955)

3. Kadar Serum IGF-1

Between-Subjects Factors

		Value Label	N
Kelompok	1	Kelompok Kontrol	6
	2	Kelompok Restriksi	6
	3	Kelompok Metformin	6

Descriptive Statistics

Dependent Variable: Kadar_IGF1

Kelompok	Mean	Std. Deviation	N
Kelompok Kontrol	1.4500	.35236	6
Kelompok Restriksi	3.8783	.84639	6
Kelompok Metformin	3.8633	.35297	6
Total	3.0639	1.28951	18

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Kadar_IGF1

F	df1	df2	Sig.
1.647	2	15	.226

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Kelompok

Tests of Between-Subjects Effects

Dependent Variable: Kadar_IGF1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	23.442[a]	2	11.721	36.434	.000
Intercept	168.973	1	168.973	525.239	.000
Kelompok	23.442	2	11.721	36.434	.000
Error	4.826	15	.322		
Total	197.242	18			
Corrected Total	28.268	17			

a. R Squared = .829 (Adjusted R Squared = .807)

Lampiran 10. Uji Post Hoc Duncan

Berat_Badan

Duncan[a,b]

Kelompok	N	Subset	
		1	2
Kelompok Restriksi	6	-25.67	
Kelompok Metformin	6	-20.00	
Kelompok Kontrol	6		26.83
Sig.		.227	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 60.811.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha =

Kadar_Glukosa_Darah

Duncan[a,b]

Kelompok	N	Subset	
		1	2
Kelompok Restriksi	6	-24.00	
Kelompok Metformin	6	-18.83	
Kelompok Kontrol	6		46.83
Sig.		.232	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 51.711.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha =

Kadar_IGF1

Duncan[a,b]

Kelompok	N	Subset 1	Subset 2
Kelompok Kontrol	6	1.4500	
Kelompok Metformin	6		3.8633
Kelompok Restriksi	6		3.8783
Sig.		1.000	.964

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .322.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha =

Lampiran 11. Uji Korelasi Pearson

Correlations

		Berat_Badan	Kadar_Glukosa_Darah	Kadar_IGF1
Berat_Badan	Pearson Correlation	1	.897**	-.886**
	Sig. (2-tailed)		.000	.000
	N	18	18	18
Kadar_Glukosa_Darah	Pearson Correlation	.897**	1	-.894**
	Sig. (2-tailed)	.000		.000
	N	18	18	18
Kadar_IGF1	Pearson Correlation	-.886**	-.894**	1
	Sig. (2-tailed)	.000	.000	
	N	18	18	18

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

Interpretasi tabel korelasi:

- Ada korelasi berat badan dengan kadar glukosa (sig.<0.05) dengan nilai 0,897 (korelasi kuat positif)
- Ada korelasi berat badan dengan kadar IGF-1 (sig.<0.05) dengan nilai 0,886 (korelasi kuat negatif)
- Ada korelasi kadar glukosa dengan kadar IGF-1 (sig.<0.05) dengan nilai 0,894 (korelasi kuat negatif)

Ada hubungan signifikan antara perubahan berat badan, kadar glukosa darah dan kadar serum IGF-1, penurunan berat badan cenderung menurunkan kadar glukosa namun menaikkan kadar igf- dan penurunan kadar glukosa juga cenderung menaikkan kadar IGF-1

Tabel 20. Interpretasi Nilai Korelasi

No	Besanya r	Interpretasi
1	0.00-0.20	Sangat Lemah
2	0.20-0.40	Lemah
3	0.40-0.70	Cukup
4	0.70-0.90	Kuat
5	0.90-1.00	Sangat Kuat

Lampiran 12. Uji Regresi Linear Berganda

1. BERAT BADAN

Descriptive Statistics

	Mean	Std. Deviation	N
Berat_Badan	-6.28	25.293	18
Kadar_Glukosa_Darah	1.33	33.858	18
Kadar_IGF1	3.0639	1.28951	18

Correlations

		Berat_Badan	Kadar_Glukosa_Darah	Kadar_IGF1
Pearson Correlation	Berat_Badan	1.000	.897	-.886
	Kadar_Glukosa_Darah	.897	1.000	-.894
	Kadar_IGF1	-.886	-.894	1.000
Sig. (1-tailed)	Berat_Badan	.	.000	.000
	Kadar_Glukosa_Darah	.000	.	.000
	Kadar_IGF1	.000	.000	.
N	Berat_Badan	18	18	18
	Kadar_Glukosa_Darah	18	18	18
	Kadar_IGF1	18	18	18

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Kadar_IGF1, Kadar_Glukosa_Darah[b]	.	Enter

a. Dependent Variable: Berat_Badan

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.917[a]	.840	.819	10.766

a. Predictors: (Constant), Kadar_IGF1, Kadar_Glukosa_Darah

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9137.064	2	4568.532	39.417	.000[b]
	Residual	1738.547	15	115.903		
	Total	10875.611	17			

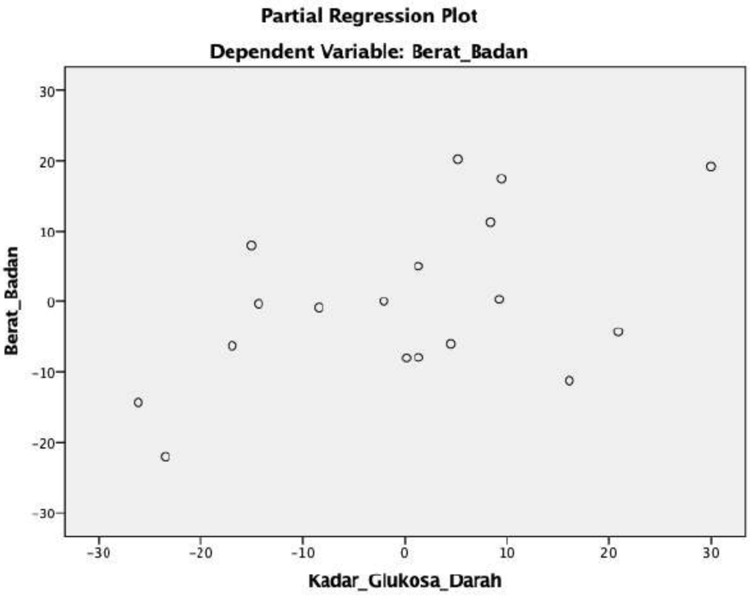
a. Dependent Variable: Berat_Badan

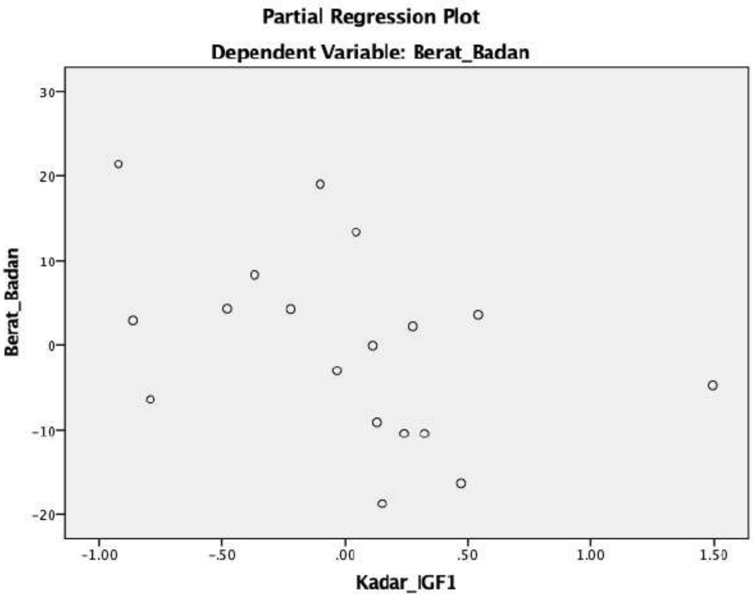
b. Predictors: (Constant), Kadar_IGF1, Kadar_Glukosa_Darah

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.296	14.270		1.282	.219
	Kadar_Glukosa_Darah	.391	.172	.524	2.276	.038
	Kadar_IGF1	-8.191	4.516	-.418	-1.814	.090

a. Dependent Variable: Berat_Badan





2. KADAR GLUKOSA DARAH

Descriptive Statistics

	Mean	Std. Deviation	N
Kadar_Glukosa_Darah	1.33	33.858	18
Berat_Badan	-6.28	25.293	18
Kadar_IGF1	3.0639	1.28951	18

Correlations

		Kadar_Glukosa_Darah	Berat_Badan	Kadar_IGF1
Pearson Correlation	Kadar_Glukosa_Darah	1.000	.897	-.894
	Berat_Badan	.897	1.000	-.886
	Kadar_IGF1	-.894	-.886	1.000
Sig. (1-tailed)	Kadar_Glukosa_Darah	.	.000	.000
	Berat_Badan	.000	.	.000
	Kadar_IGF1	.000	.000	.
N	Kadar_Glukosa_Darah	18	18	18
	Berat_Badan	18	18	18
	Kadar_IGF1	18	18	18

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Kadar_IGF1, Berat_Badan[b]	.	Enter

a. Dependent Variable: Kadar_Glukosa_Darah

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.922[a]	.851	.831	13.933

a. Predictors: (Constant), Kadar_IGF1, Berat_Badan

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16575.901	2	8287.950	42.691	.000[b]
	Residual	2912.099	15	194.140		
	Total	19488.000	17			

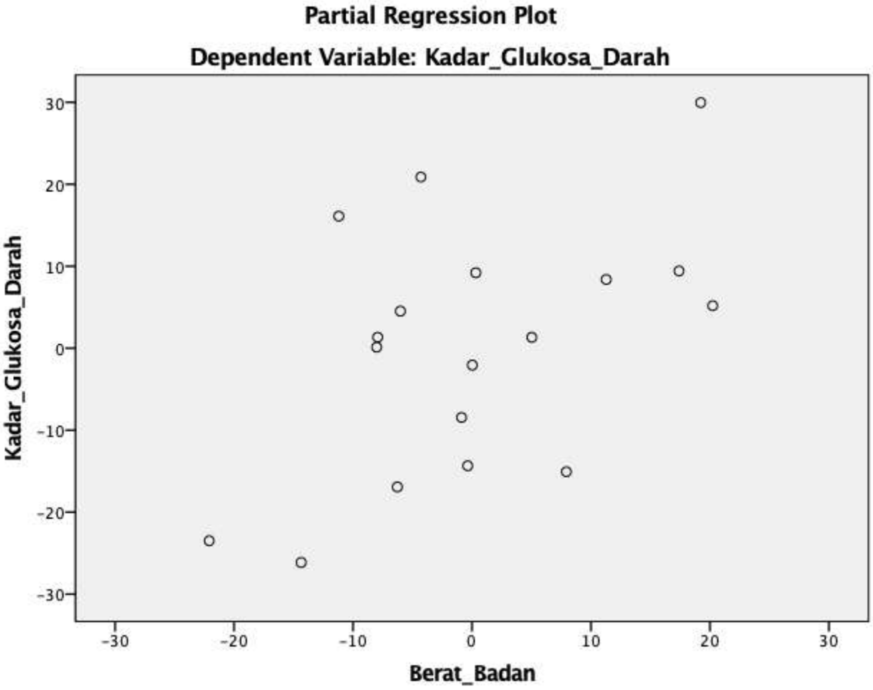
a. Dependent Variable: Kadar_Glukosa_Darah

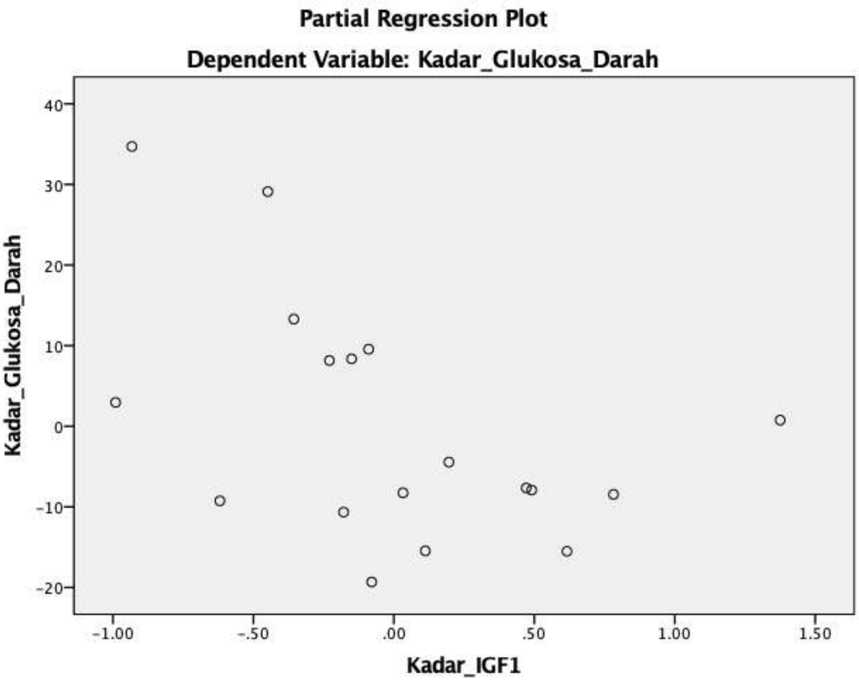
b. Predictors: (Constant), Kadar_IGF1, Berat_Badan

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	42.446	16.073		2.641	.019
	Berat_Badan	.656	.288	.490	2.276	.038
	Kadar_IGF1	-12.075	5.651	-.460	-2.137	.050

a. Dependent Variable: Kadar_Glukosa_Darah


Partial Regression Plot
Dependent Variable: Kadar_Glukosa_Darah
Kadar_Glukosa_Darah
30
20
10
0
-10
-20
-30
-30
-20
-10
0
10
20
30
Berat_Badan


Partial Regression Plot
Dependent Variable: Kadar_Glukosa_Darah
Kadar_Glukosa_Darah
40
30
20
10
0
-10
-20
-1.00
-.50
.00
.50
1.00
1.50
Kadar_IGF1

3. KADAR IGF-1

Descriptive Statistics

	Mean	Std. Deviation	N
Kadar_IGF1	3.0639	1.28951	18
Berat_Badan	-6.28	25.293	18
Kadar_Glukosa_Darah	1.33	33.858	18

Correlations

		Kadar_IGF1	Berat_Badan	Kadar_Glukosa_Darah
Pearson Correlation	Kadar_IGF1	1.000	-.886	-.894
	Berat_Badan	-.886	1.000	.897
	Kadar_Glukosa_Darah	-.894	.897	1.000
Sig. (1-tailed)	Kadar_IGF1	.	.000	.000
	Berat_Badan	.000	.	.000
	Kadar_Glukosa_Darah	.000	.000	.
N	Kadar_IGF1	18	18	18
	Berat_Badan	18	18	18
	Kadar_Glukosa_Darah	18	18	18

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Kadar_Glukosa_Darah, Berat_Badan[b]	.	Enter

a. Dependent Variable: Kadar_IGF1

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.914[a]	.835	.813	.55741

a. Predictors: (Constant), Kadar_Glukosa_Darah, Berat_Badan

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.607	2	11.804	37.990	.000[b]
	Residual	4.661	15	.311		
	Total	28.268	17			

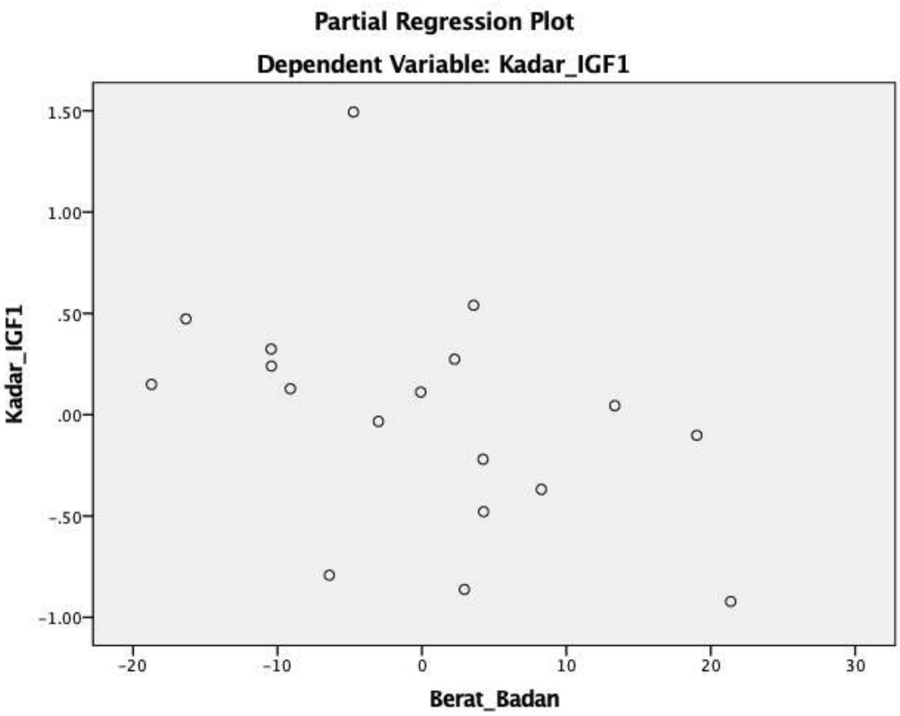
a. Dependent Variable: Kadar_IGF1

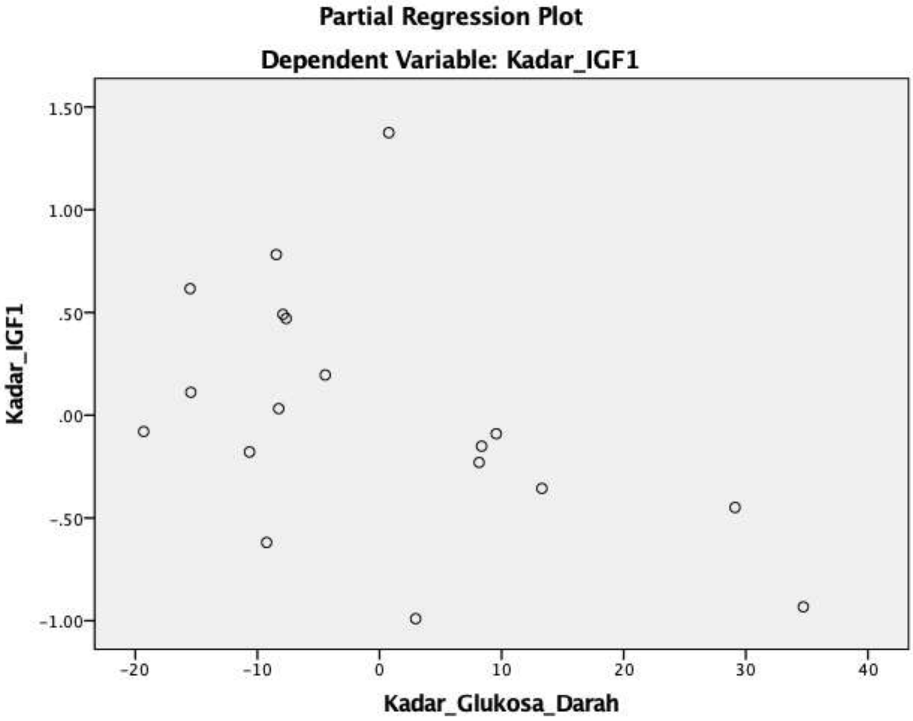
b. Predictors: (Constant), Kadar_Glukosa_Darah, Berat_Badan

Coefficients[a]

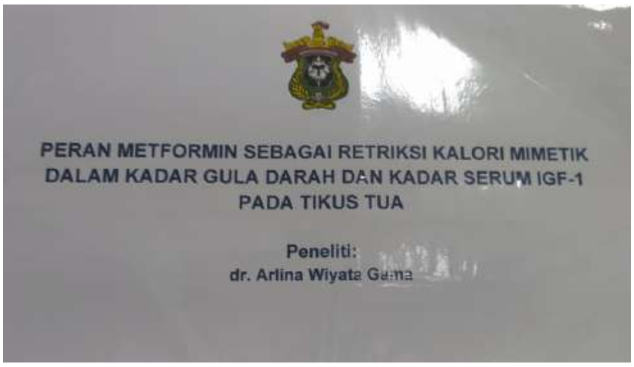
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.952	.158		18.733	.000
	Berat_Badan	-.022	.012	-.431	-1.814	.090
	Kadar_Glukosa_Darah	-.019	.009	-.507	-2.137	.050

a. Dependent Variable: Kadar_IGF1



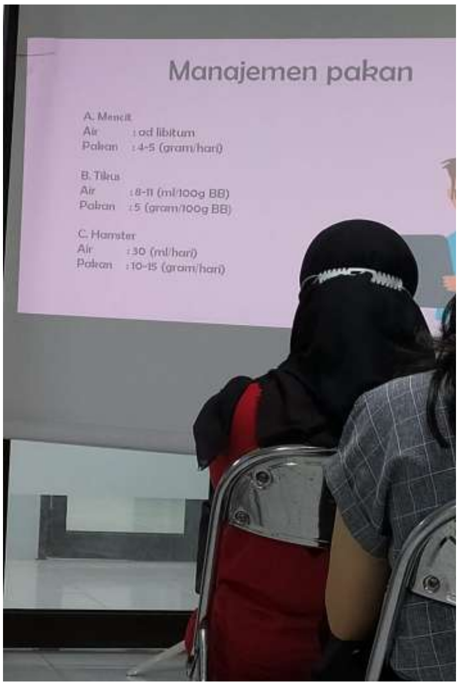

Partial Regression Plot
Dependent Variable: Kadar_IGF1
Kadar_IGF1
1.50
1.00
.50
.00
-.50
-1.00
-20
-10
0
10
20
30
40
Kadar_Glukosa_Darah

Lampiran 13. Dokumentasi Penelitian



Judul Penelitian yang ditempel di Pintu Laboratorium

Alat dan Bahan untuk Perlakuan pada hewan coba



Workshop Handling pada Hewan Coba

Keadaan Kandang di Laboratorium

Pembuatan Larutan Metformin

Penimbangan Berat Pakan Hewan

Sonde Larutan Metformin sesuai dosis pada hewan coba

Kondisi ruangan beserta alat dan bahan persiapan pengambilan darah untuk pengukuran kadar glukosa darah dan serum darah hewan coba

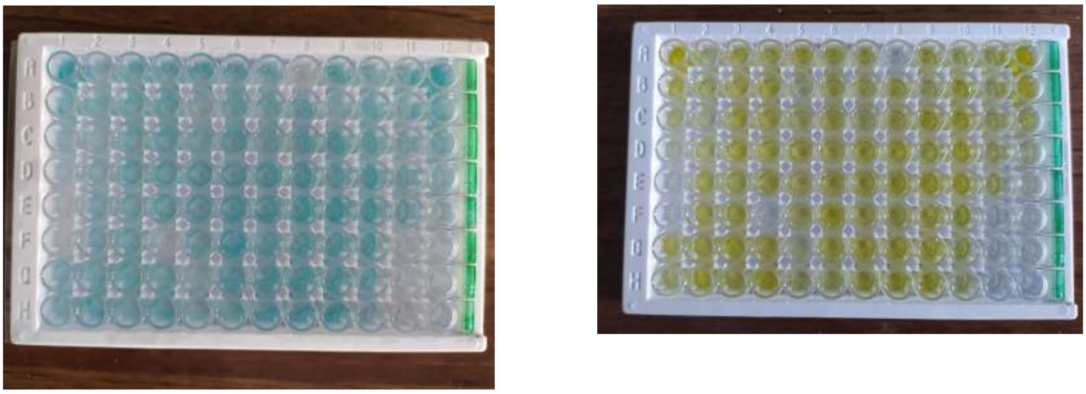
Tabung berisi darah hewan coba

Alat dan Bahan Pengambilan sampel darah hewan coba

Serum darah dalam tabung eppendorf untuk pemeriksaan ELISA

Reagen ELISA KIT IGF-1

Pemeriksaan serum IGF-1 dengan metode ELISA di Laboratorium HUMRC Rumah Sakit UNHAS



Perubahan warna pada sampel serum IGF-1

Pemeriksaan sampel menggunakan ELISA Reader