

LAMPIRAN

Lampiran 1 : Data Berat Badan Tikus, Ekspresi IL - 17 Jaringan, dan Derajat Fibrosis Hati

Perlakuan	Tikus	Berat Badan Awal (gram)	Berat Badan Akhir (gram)	Ekspresi IL - 17 Jaringan Hati (%)	Mean Ekspresi IL - 17 Jaringan Hati (%) $\pm$ SD	Derajat Fibrosis Hati
K-Negatif Diinjeksi NaCl 1 cc 2x/minggu selama 9 minggu	1 (KP1-1)	180	225	16,92	16,93 $\pm$ 2,62	F0
	2 (KP2-1)	218	264	18,20		F0
	3 (KP3-1)	190	253	19,48		F0
	4 (KP4-1)	157	213	13,40		F1
K-Positif Diinjeksi CCl ₄ 1 cc 2x/minggu selama 9 minggu	1 (KN1-1)	179	213	56,28	30,70 $\pm$ 17,34	F3
	2 (KN2-1)	207	287	23,47		F3
	3 (KN3-1)	170	243	25,20		F2
	4 (KN4-1)	193	286	17,86		F3
KP-2 Sonde kurkumin (200mg/kgBB) selama 2 minggu	1 (KP1-1)	188	247	18,41	17,68 $\pm$ 0,58	F2
	2 (KP2-1)	168	212	17,33		F2
	3 (KP3-1)	168	245	17,12		F1
	4 (KP4-1)	202	253	17,86		F1
KK-2 Sonde pelarut kurkumin selama 2 minggu	1 (KK2.1)	178	224	39,98	36,56 $\pm$ 2,57	F2
	2 (KK2.2)	188	240	37,07		F3
	3 (KK2.3)	191	250	34,89		F2
	4 (KK2.4)	183	248	34,32		F2
KP-5 Sonde kurkumin (200mg/kgBB) selama 5 minggu	1(HKP5.1)	174	189	23,67	18,21 $\pm$ 8,71	F2
	2(HKP5.2)	198	277	8,77		F2
	3(HKP5.3)	175	214	13,09		F3
	4(HKP5.4)	164	197	27,31		F2
KK-5 Sonde pelarut kurkumin selama 5 minggu	1(HKK5.1)	173	208	37,84	30,46 $\pm$ 6,15	F3
	2(HKK5.2)	169	184	32,88		F2
	3(HKK5.3)	180	208	27,17		F1
	4(HKK5.4)	193	258	23,95		F3

Perlakuan	Tikus	Berat Badan Awal (gram)	Berat Badan Akhir (gram)	Ekspresi IL – 17 Jaringan Hati (%)	Mean Ekspresi IL – 17 Jaringan Hati (%) $\pm$ SD	Derajat Fibrosis Hati
KP-9 Sonde kurkumin (200mg/kgBB) selama 9 minggu	1(HKP6.1)	174	219	18,40	22,09 $\pm$ 6,69	F0
	2(HKP6.2)	173	206	31,06		F1
	3(HKP6.3)	169	195	15,83		F0
	4(HKP6.4)	153	171	23,11		F1
KK-9 Sonde pelarut kurkumin selama 9 minggu	1(HKK6.1)	216	325	29,98	19,93 $\pm$ 7,52	F0
	2(HKK6.2)	169	176	21,22		F1
	3(HKK6.3)	186	217	13,06		F1
	4(HKK6.4)	184	209	15,47		F1

Lampiran 2 : Analisis Statistik

Uji Normalitas dan Homogenitas Data

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IL-17 P1	,152	32	,059	,953	32	,173

a. Lilliefors Significance Correction

Homogenitas Berdasarkan Kelompok

Test of Homogeneity of Variances				
IL-17 P1				
Levene Statistic	df1	df2	Sig.	
1,299	7	24	,293	

Homogenitas Berdasarkan Derajat

Test of Homogeneity of Variances				
IL 17				
Levene Statistic	df1	df2	Sig.	
2,510	3	28	,079	

Uji T Tidak Berpasangan pada Kelompok Kontrol

Group Statistics

KELOMPOK	N	Mean	Std. Deviation	Std. Error Mean
IL-17 P1 K Neg	4	16.9993	2.61682	1.30841
K Pos	4	30.7028	17.33756	8.66878

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
IL-17 P1	Equal variances assumed	5.650	.055	-1.563	6	.169	-13.7035	8.76697	-35.15550	7.74850
	Equal variances not assumed			-1.563	3.137	.212	-13.7035	8.76697	-40.92888	13.52188

Uji One Way Anova dan Post Hoc LSD Berdasarkan Kelompok

ANOVA

IL-17 P1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1548,258	7	221,180	3,342	,012
Within Groups	1588,492	24	66,187		
Total	3136,750	31			

Uji Post Hoc *LSD* Berdasarkan Kelompok

Multiple Comparisons

Dependent Variable: IL-17 P1

LSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
K Neg	K Pos	-13,70350*	5,75270	,025	-25,5765	-1,8305
	KP 2	-,68100	5,75270	,907	-12,5540	11,1920
	KK 2	-19,56450*	5,75270	,002	-31,4375	-7,6915
	KP 5	-1,20975	5,75270	,835	-13,0827	10,6632
	KK 5	-13,45975*	5,75270	,028	-25,3327	-1,5868
	KP 9	-5,10025	5,75270	,384	-16,9732	6,7727
	KK 9	-2,93550	5,75270	,615	-14,8085	8,9375
K Pos	K Neg	13,70350*	5,75270	,025	1,8305	25,5765
	KP 2	13,02250*	5,75270	,033	1,1495	24,8955
	KK 2	-5,86100	5,75270	,318	-17,7340	6,0120
	KP 5	12,49375*	5,75270	,040	,6208	24,3667
	KK 5	,24375	5,75270	,967	-11,6292	12,1167
	KP 9	8,60325	5,75270	,148	-3,2697	20,4762
	KK 9	10,76800	5,75270	,073	-1,1050	22,6410
KP 2	K Neg	,68100	5,75270	,907	-11,1920	12,5540
	K Pos	-13,02250*	5,75270	,033	-24,8955	-1,1495
	KK 2	-18,88350*	5,75270	,003	-30,7565	-7,0105
	KP 5	-,52875	5,75270	,928	-12,4017	11,3442
	KK 5	-12,77875*	5,75270	,036	-24,6517	-,9058
	KP 9	-4,41925	5,75270	,450	-16,2922	7,4537
	KK 9	-2,25450	5,75270	,699	-14,1275	9,6185
KK 2	K Neg	19,56450*	5,75270	,002	7,6915	31,4375
	K Pos	5,86100	5,75270	,318	-6,0120	17,7340
	KP 2	18,88350*	5,75270	,003	7,0105	30,7565
	KP 5	18,35475*	5,75270	,004	6,4818	30,2277
	KK 5	6,10475	5,75270	,299	-5,7682	17,9777
	KP 9	14,46425*	5,75270	,019	2,5913	26,3372
	KK 9	16,62900*	5,75270	,008	4,7560	28,5020
KP 5	K Neg	1,20975	5,75270	,835	-10,6632	13,0827
	K Pos	-12,49375*	5,75270	,040	-24,3667	-,6208

	KP 2	,52875	5,75270	,928	-11,3442	12,4017
	KK 2	-18,35475*	5,75270	,004	-30,2277	-6,4818
	KK 5	-12,25000*	5,75270	,044	-24,1230	-,3770
	KP 9	-3,89050	5,75270	,505	-15,7635	7,9825
	KK 9	-1,72575	5,75270	,767	-13,5987	10,1472
KK 5	K Neg	13,45975*	5,75270	,028	1,5868	25,3327
	K Pos	-,24375	5,75270	,967	-12,1167	11,6292
	KP 2	12,77875*	5,75270	,036	,9058	24,6517
	KK 2	-6,10475	5,75270	,299	-17,9777	5,7682
	KP 5	12,25000*	5,75270	,044	,3770	24,1230
	KP 9	8,35950	5,75270	,159	-3,5135	20,2325
	KK 9	10,52425	5,75270	,080	-1,3487	22,3972
KP 9	K Neg	5,10025	5,75270	,384	-6,7727	16,9732
	K Pos	-8,60325	5,75270	,148	-20,4762	3,2697
	KP 2	4,41925	5,75270	,450	-7,4537	16,2922
	KK 2	-14,46425*	5,75270	,019	-26,3372	-2,5913
	KP 5	3,89050	5,75270	,505	-7,9825	15,7635
	KK 5	-8,35950	5,75270	,159	-20,2325	3,5135
	KK 9	2,16475	5,75270	,710	-9,7082	14,0377
KK 9	K Neg	2,93550	5,75270	,615	-8,9375	14,8085
	K Pos	-10,76800	5,75270	,073	-22,6410	1,1050
	KP 2	2,25450	5,75270	,699	-9,6185	14,1275
	KK 2	-16,62900*	5,75270	,008	-28,5020	-4,7560
	KP 5	1,72575	5,75270	,767	-10,1472	13,5987
	KK 5	-10,52425	5,75270	,080	-22,3972	1,3487
	KP 9	-2,16475	5,75270	,710	-14,0377	9,7082

*. The mean difference is significant at the 0.05 level.

Uji One Way Anova dan Post Hoc LSD Berdasarkan Derajat

ANOVA

IL_17

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1046,275	3	348,758	4,671	,009
Within Groups	2090,715	28	74,668		
Total	3136,991	31			

Multiple Comparisons

Dependent Variable: IL_17

LSD

(I) Derajat	(J) Derajat	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F0	F1	-3,02833	4,55425	,512	-12,3573	6,3006
	F2	-12,95800*	4,46224	,007	-22,0985	-3,8175
	F3	-13,28071*	4,80746	,010	-23,1283	-3,4331
F1	F0	3,02833	4,55425	,512	-6,3006	12,3573
	F2	-9,92967*	3,97031	,019	-18,0625	-1,7969
	F3	-10,25238*	4,35470	,026	-19,1726	-1,3322
F2	F0	12,95800*	4,46224	,007	3,8175	22,0985
	F1	9,92967*	3,97031	,019	1,7969	18,0625
	F3	-,32271	4,25837	,940	-9,0456	8,4002
F3	F0	13,28071*	4,80746	,010	3,4331	23,1283
	F1	10,25238*	4,35470	,026	1,3322	19,1726
	F2	,32271	4,25837	,940	-8,4002	9,0456

*. The mean difference is significant at the 0.05 level.

Uji Korelasi Spearman

Correlations

			Derajat	IL-17
Spearman's rho	Derajat	Correlation Coefficient	1.000	.367*
		Sig. (2-tailed)	.	.039
		N	32	32
IL-17		Correlation Coefficient	.367*	1.000
		Sig. (2-tailed)	.039	.
		N	32	32

*. Correlation is significant at the .05 level (2-tailed).

Uji Regresi Linier

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.394 ^a	.155	.127	9.39782

a. Predictors: (Constant), Derajat

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	487.177	1	487.177	5.516	.026 ^a
	Residual	2649.573	30	88.319		
	Total	3136.750	31			

a. Predictors: (Constant), Derajat

b. Dependent Variable: IL-17

Uji Interclass Correlation Derajat Fibrosis

Intraclass Correlation Coefficient							
	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	,784 ^a	,598	,890	8,252	30	30	,000
Average Measures	,879 ^c	,749	,942	8,252	30	30	,000

Two-way mixed effects model where people effects are random and measures effects are fixed.

- The estimator is the same, whether the interaction effect is present or not.
- Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.
- This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

Uji Interclass Correlation Ekspresi IL – 17 Jaringan

Intraclass Correlation Coefficient							
	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	,997 ^a	,994	,999	651,769	31	31	,000
Average Measures	,998 ^c	,997	,999	651,769	31	31	,000

Two-way mixed effects model where people effects are random and measures effects are fixed.

- The estimator is the same, whether the interaction effect is present or not.
- Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.
- This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

Lampiran 3 : Keterangan Kelaikan Etik Penelitian

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	KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI UNIVERSITAS BRAWIJAYA FAKULTAS KEDOKTERAN KOMISI ETIK PENELITIAN KESEHATAN Jalan Veteran Malang - 65145, Jawa Timur - Indonesia Telp. (62) (0341) 551611 Ext. 168; 569117; 567192 - Fax. (62) (0341) 564755 http://www.fk.ub.ac.id e-mail : kep.fk@ub.ac.id
KETERANGAN KELAIKAN ETIK ("ETHICAL CLEARANCE") No. 76A / EC / KEPK – S1 - PD / 03 / 2016	
KOMISI ETIK PENELITIAN KESEHATAN FAKULTAS KEDOKTERAN UNIVERSITAS BRAWIJAYA, SETELAH MEMPELAJARI DENGAN SEKSAMA RANCANGAN PENELITIAN YANG DIUSULKAN, DENGAN INI MENYATAKAN BAHWA PENELITIAN DENGAN	
JUDUL	: Peran Kurkumin Terhadap Perbaikan Fibrosis Hati Pada Tikus Model Fibrosis Akibat Induksi Karbon Tetraklorida (CC14).
PENELITI	: Akhmad Ikbal Purnawarman Marselina Loisa Holly Ayamiseba Ayu Novita Kartikaningtyas Muhammad Abduh Eka Pratiwi Muhammad Rizky Putra Adi Ifa Febriana Noerdian Syah Indra Sutanto Vivi Herdiana Fatmasari Lazuardi Fadhullah Wahyu Yoga Septian
UNIT / LEMBAGA	: S1 Pendidikan Dokter – Fakultas Kedokteran - Universitas Brawijaya Malang
TEMPAT PENELITIAN	: Laboratorium Farmakologi, Laboratorium FAAL, dan Laboratorium Patologi Anatomi Fakultas Kedokteran Universitas Brawijaya Malang.
DINYATAKAN LAIK ETIK. Malang, 11 MAR 2016 An Ketua Koordinator Divisi I Prof. Dr. dr Teguh W. Sardjono, DTM&H, MSc, SpPark NIP. 19520410 198002 1 001	
Catatan : Keterangan Laik Etik Ini Berlaku 1 (Satu) Tahun Sejak Tanggal Dikeluarkan Pada Akhir Penelitian, Laporan Pelaksanaan Penelitian Harus Diserahkan Kepada KEPK-FKUB Dalam Bentuk Soft Copy. Jika Ada Perubahan Protokol Dan / Atau Perpanjangan Penelitian, Harus Mengajukan Kembali Permohonan Kajian Etik Penelitian (Amandemen Protokol).	

Lampiran 4 : Dokumentasi Penelitian

