BAB 5

KESIMPULAN DAN SARAN

5.1. Kesimpulan :

1. LD_{50} ekstrak etanol herba putri malu termasuk dalam kriteria praktis tidak toksik (Loomis, 1978) atau relatif tidak toksik (Leblanc and Buchwalter, 2010) dengan nilai LD_{50} lebih dari 5000 mg/kgBB.
2. Ekstrak etanol herba putri malu dengan dosis 550 mg/kgBB, 1750 mg/kgBB dan 5000 mg/kgBB tidak menyebabkan perubahan aktivitas pada tikus Wistar jantan.
3. Ekstrak etanol herba putri malu dengan dosis 550 mg/kgBB, 1750 mg/kgBB dan 5000 mg/kgBB tidak menyebabkan perubahan indeks organ pada tikus Wistar jantan.

5.2. Saran :

Saran untuk penelitian selanjutnya adalah :

1. Perlu dilakukan penelitian lebih lanjut tentang LD_{50} ekstrak putri malu dengan menggunakan dosis yang lebih tinggi dengan metode yang berbeda.
2. Perlu diadakan penelitian lebih lanjut untuk meneliti toksisitas subkronis dan kronis dari ekstrak putri malu.

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LAMPIRAN A

Surat Determinasi Hewan Coba

Drh Rachmad Priyadi
Email : pri_rachmad@yahoo.com
Tlp : (031)31361226 / 081325941001

Surat Keterangan
No: 01/III/2014

Yang bertanda tangan dibawah ini :

Nama : **Drh. Rachmad Priyadi**

Menerangkan :

Jenis	: **Tikus Rattus Norvegicus**
Strain	: **Wistar**
Umur	: **± 2 bulan**
Jenis Kelamin	: **Jantan dan betina**
Berat	: 130 **s/d 150 gram**
Kondisi	: **Sehat dan tidak terjangkit penyakit**
Jumlah	: **80 ekor**

Ditujukan kepada :

Laboratorium	: **Farmasi**
Fakultas	: **Farmasi Universitas Widya Mandala**

Demikian Surat Keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Surabaya, 03 Maret 2014

Hormat saya

Drh. Rachmad Priyadi
031 - 31 361 226
081 325 941 001

(Drh. Rachmad Priyadi)

LAMPIRAN B

Surat Determinasi Herba Putri Malu

UNIT LAYANAN JASA DAN PENGUJIAN
FAKULTAS FARMASI
UNIVERSITAS KATOLIK WIDYA MANDALA SURABAYA

SURAT KETERANGAN IDENTIFIKASI
No.647/LJ-FF/I/2014

Bersama ini menerangkan bahwa bahan yang dibawa oleh:

Nama : Febby Sendy Elisa (NRP: 2443011042)
Instansi : Fakultas Farmasi Unika Widya Mandala Surabaya
Tanggal : 10 November 2014
Jenis bahan : Bahan segar (herba)

Adalah memiliki klasifikasi sebagai berikut:

Divisi : Spermatophyta
Sub Divisi : Angiospermae
Kelas : Dicotyledoneae
Bangsa : Fabales
Suku : Mimosaceae
Marga : Mimosa
Jenis : ***Mimosa pudica* L.**

Berdasarkan pustaka:
1. Backer, C.A, Vol 1. 1963. *Flora of Java*. Hal.561
2. Bailey, L.H, Jilid I. 1950. *The Standard Cyclopedia of Horticulture*. Hal 3.

Demikian surat keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Surabaya, 12 November 2014

Pemeriksa,

Mengetahui
Koordinator Layanan Jasa

Lisa Soegianto, S.Si., M.Sc., Apt
NIK. 241.07.0609

Sumi Wijaya, Ph.D., Apt
NIK. 241.03.0588

Jl. Dinoyo 42-44 Surabaya – 60265, telp. (031) 5678478 ext. 114 Fax. 5630169

LAMPIRAN C

Keterangan Kelayakan Etik

UNIVERSITAS GADJAH MADA
LABORATORIUM PENELITIAN DAN PENGUJIAN TERPADU
KOMISI ETHICAL CLEARANCE UNTUK PENELITIAN PRAKLINIK

KETERANGAN KELAIKAN ETIK

(*Ethical Clearance*)

Nomor: 185/KEC-LPPT/IX/2014

Komisi *Ethical Clearance* untuk penelitian praklinik Laboratorium Penelitian dan Pengujian Terpadu, Universitas Gadjah Mada, Yogyakarta, setelah mempelajari dengan seksama rancangan penelitian yang diusulkan, dengan ini menyatakan bahwa penelitian:

Judul penelitian : **Uji Toksisitas Akut Infusa dan Ekstrak Etanol Herba Putri Malu (*Mimosa pudica L*) pada Mencit Swiss Webster dan Tikus Wistar Jantan dan Betina**

Peneliti Utama : **Lisa Soegianto, M.Sc., Apt.**

Asal Instansi : **Fakultas Farmasi Unika Widya Mandala Surabaya**

Lokasi Penelitian : **Laboratorium Biomedik dan Kandang Hewan Fakultas Farmasi Unika Widya Mandala Surabaya**

Telah dinyatakan memenuhi persyaratan etik untuk dilaksanakan penelitian tersebut pada hewan uji mencit dan tikus. Komisi *Ethical Clearance* mempunyai hak untuk melakukan pemantauan selama penelitian berlangsung.

Yogyakarta, 15 September 2014
Komisi *Ethical Clearance*
Ketua,

Prof. Dr. dh. Pudji Astuti, MP.

LAMPIRAN D

Gambar Bahan Yang Digunakan

Ekstrak kental herba putri malu (*Mimosa pudica* L.)

Larutan uji ekstrak etanol herba putri malu (*Mimosa pudica* L.)

Tikus Wistar jantan

LAMPIRAN E

Perlakuan Hewan Coba

Pemberian larutan uji melalui sonde

Proses pembedahan hewan coba

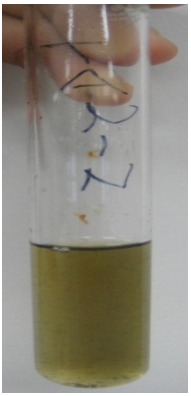
Pengamatan aktivitas diatas *Platform*

Pengamatan aktivitas menggelantung

LAMPIRAN F

Hasil Skrining Fitokimia

(+) Alkaloid dengan pereaksi *dragendorf*



(+) Tannin

(+) Flavonoid

(+) Saponin

(+) Triterpenoid dan steroid

(+) Kuinon

LAMPIRAN G

Hasil Perhitungan Standarisasi

I. Hasil Perhitungan Penetapan Kadar Air Simplisia

$$\text{Kadar Air} = \frac{berat\ zat-(berat\ cawan+zat-cawan\ kosong\ konstan)}{Berat\ zat}$$

a. Kadar Air = $\frac{2,0119-(120,9250-119,0822)}{2,0119}$ x 100% = 8,31%

b. Kadar Air = $\frac{2,0138-(123,1615-121,2993)}{2,0138}$ x 100% = 7,53%

c. Kadar Air = $\frac{2,0049-(87,0713-85,2373)}{2,0049}$ x 100% = 8,49%

Rata-rata kadar air = $\frac{8,31+7,53+8,49}{3}$ = 8,11%

II. Hasil Perhitungan Penetapan Kadar Air Ekstrak

a. Kadar Air = $\frac{5,0054-(88,1658-83,5648)}{5,0054}$ x 100% = 8,08%

b. Kadar Air = $\frac{5,0012-(92,7140-88,1440)}{5,0012}$ x 100% = 8,62%

c. Kadar Air = $\frac{5,0051-(83,6179-79,0626)}{5,0051}$ x 100% = 8,91%

Rata-rata kadar air = $\frac{8,08+8,62+8,91}{3}$ = 8,54%

III. Hasil Perhitungan Penetapan Kadar Abu Simplisia

a. $\text{Kadar Abu} = \frac{(\text{berat krus+abu}) - \text{berat krus kosong}}{\text{berat zat}} \text{ x } 100\%$

$= \frac{33,5256 - 33,4309}{2,0077} \text{ x } 100\% = 4,57\%$

b. $\text{Kadar Abu} = \frac{33,0268 - 32,9405}{2,0053} \text{ x } 100\% = 4,30\%$

c. $\text{Kadar Abu} = \frac{32,7283 - 32,6390}{2,0087} \text{ x } 100\% = 4,55\%$

$\text{Rata} - \text{rata kadar abu} = \frac{4,57\% + 4,30\% + 4,55\%}{3} = 4,5\%$

IV. Hasil Perhitungan Penetapan Kadar Abu Ekstrak

a. $\text{Kadar Abu} = \frac{31,8652 - 31,7720}{2,0009} \text{ x } 100\% = 4,64\%$

b. $\text{Kadar Abu} = \frac{33,4415 - 33,3594}{2,0002} \text{ x } 100\% = 4,32\%$

$\text{Rata} - \text{rata kadar abu} = \frac{4,64\% + 4,32\%}{2} = 4,48\ \%$

V. Hasil Perhitungan Penetapan Kadar Sari Larut Air Simplisia

a. $\text{Kadar Sari Larut Air} = \frac{(\text{berat cawan+cairan}) - \text{berat cawan kosong}}{\text{berat simplisia}} \text{ x } 100\%$

$= \frac{83,7050 - 83,5523}{5,0037} \text{ x } 5 \text{ x } 100\% = 15,26\ \%$

b. Kadar Sari Larut Air $= \frac{(\text{berat cawan+cairan}) - \text{berat cawan kosong}}{\text{berat simplisia}}$ x 100%

$= \frac{79,2652 - 79,1089}{5,0036}$ x 5 x 100% = 15,62 %

c. Kadar Sari Larut Air $= \frac{(\text{berat cawan+cairan}) - \text{berat cawan kosong}}{\text{berat simplisia}}$ x 100%

$= \frac{57,5441 - 57,3892}{5,0052}$ x 5 x 100% = 15,47%

$\text{Rata} - \text{rata kadar sari larut air} = \frac{15,26\% + 15,62\% + 15,47\%}{3} = 15,45\%$

VI. Hasil Perhitungan Penetapan Kadar Sari Larut Etanol Simplisia

a. Kadar senyawa larut etanol

$$\frac{(\text{berat cawan} + \text{ekstrak}) - \text{berat cawan kosong}}{\text{berat simplisia}} \text{ x } 100\%$$

$= \frac{83,6828 - 83,5494}{5,0028}$ x 5 x 100% = 13,33 %

b. Kadar senyawa larut etanol

$$\frac{\text{berat cawan} + \text{ekstrak}) - \text{berat cawan kosong}}{\text{berat simplisia}} \text{ x } 100$$

$= \frac{83,2676 - 83,1287}{5,0079}$ x 5 x 100% = 13,87%

Rata-rata kadar senyawa larut etanol = $\frac{13,33 + 13,87}{2}$ = 13,6 %

LAMPIRAN H

Hasil Perhitungan Berat Ekstrak Untuk Larutan Uji

Jumlah Ekstrak = $\frac{\sum BB\ tikus\ tiap\ perlakuan}{1000}$ x $\frac{dosis}{volume\ pemberian}$ x 20

Dosis 550 :

1. 178
2. 165
3. 160
4. 196

———— +

699

$\frac{699}{1000}$ x $\frac{550}{12}$ x 20 = 0,641 g/20 ml

Dosis 1750 :

1. 172
2. 153
3. 208
4. 164

———— +

697

$\frac{697}{1000}$ x $\frac{1750}{12}$ x 20 = 2,033 g/20 ml

Dosis 5000 :

1. 161
2. 162
3. 166
4. 164

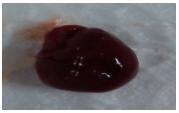
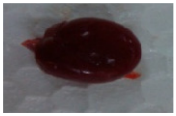
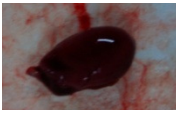
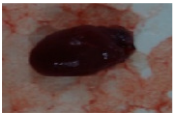
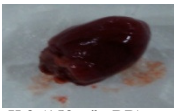
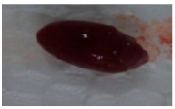
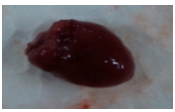
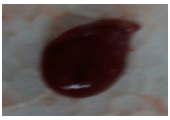
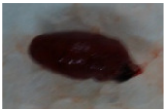
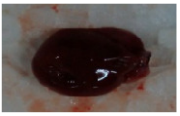
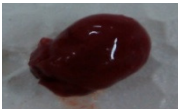
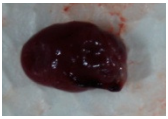
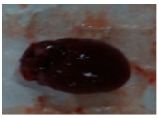
———— +

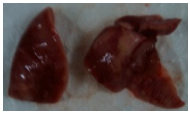
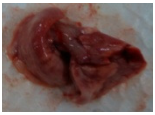
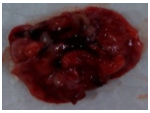
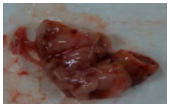
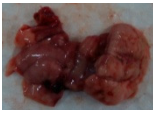
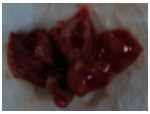
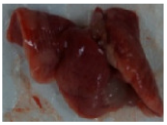
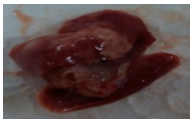
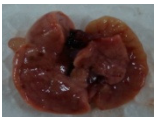
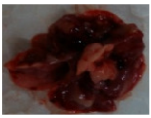
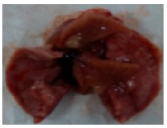
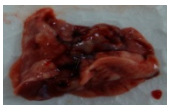
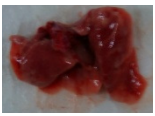
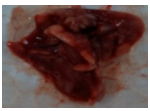
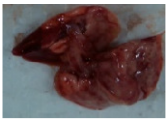
653

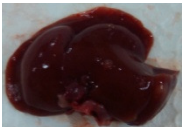
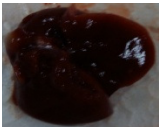
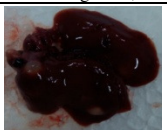
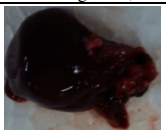
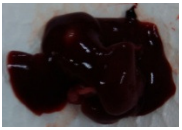
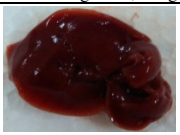
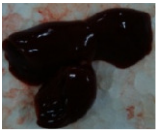
$\frac{653}{1000}$ x $\frac{5000}{12}$ x 20 = 5,442 g/20 ml

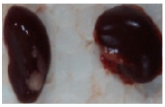
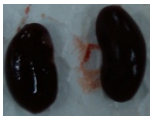
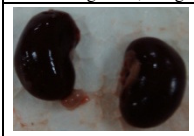
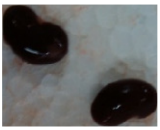
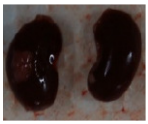
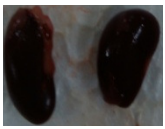
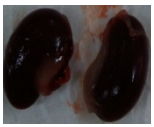
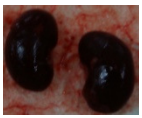
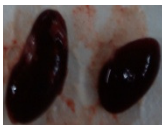
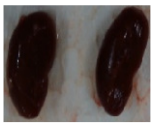
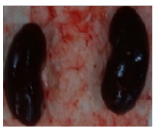
LAMPIRAN I

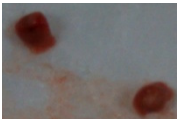
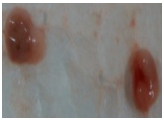
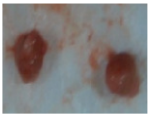
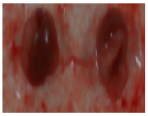
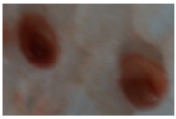
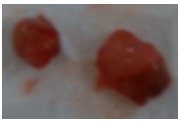
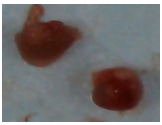
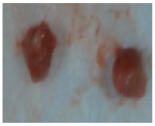
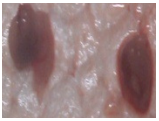
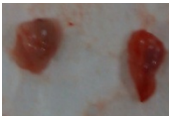
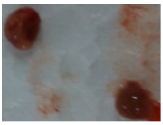
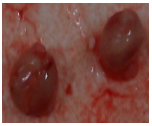
Hasil Pembedahan

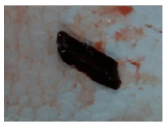
Organ Jantung			
 K 1 (181 g/kgBB) Indeks organ : 0,375 g	 KP 1 550 mg/kgBB (175 g/kgBB) Indeks organ : 0,297 g	 KP 1 1750 mg/kgBB (153 g/kgBB) Indeks organ : 0,313 g	 KP 1 5000 mg/kgBB (155 mg/kgBB) Indeks organ : 0,313 g
 K 2 (159 g/kgBB) Indeks organ : 0,377 g	 KP 2 550 mg/kgBB (178 g/kgBB) Indeks organ : 0,308 g	 KP 2 1750 mg/kgBB (171 g/kgBB) Indeks organ : 0,315 g	 KP 2 5000 mg/kgBB (163 mg/kgBB) Indeks organ : 0,355 g
 K 3 (187 g/kgBB) Indeks organ : 0,352 g	 KP 3 550 mg/kgBB (155 g/kgBB) Indeks organ : 0,316 g	 KP 1750 mg/kgBB 3 (220 g/kgBB) Indeks organ : 0,309 g	 KP 3 5000 mg/kgBB 3 (162 mg/kgBB) Indeks organ : 0,419 g
 K 4 (153 g/kgBB) Indeks organ : 0,372 g	 KP 550 mg/kgBB 4 (193 g/kgBB) Indeks organ : 0,316 g	 KP 4 1750 mg/kgBB (164 g/kgBB) Indeks organ : 0,298 g	 KP 4 5000 mg/kgBB (157 mg/kgBB) Indeks organ : 0,343 g

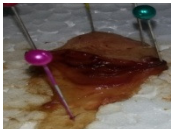
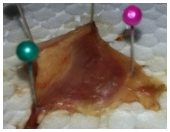
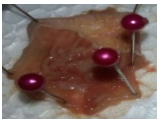
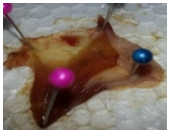
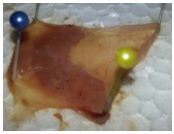
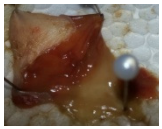
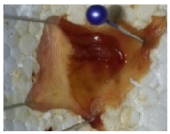
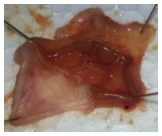
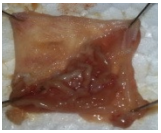
Organ Paru			
			
K 1 Indeks organ : 0,801 g	KP 1 550 mg/kgBB Indeks organ : 0,773 g	KP 1 1750 mg/kgBB Indeks organ : 1,098 g	KP 1 5000 mg/kgBB Indeks organ : 0,806 g
			
K 2 (g/kgBB) Indeks organ : 1,312 g	KP 2 550 mg/kgBB Indeks organ : 0,788 g	KP 2 1750 mg/kgBB Indeks organ : 0,888 g	KP 2 5000 mg/kgBB Indeks organ : 1,051 g
			
K 3 (g/kgBB) Indeks organ : 1,09 g	KP 3 550 mg/kgBB Indeks organ : 1,084 g	KP 3 1750 mg/kgBB Indeks organ : 0,677 g	KP 3 5000 mg/kgBB Indeks organ : 0,981 g
			
K 4 (g/kgBB) Indeks organ : 0,981 g	KP 4 550 mg/kgBB Indeks organ : 0,8 g	KP 4 1750 mg/kgBB Indeks organ : 0,774 g	KP 4 5000mg/kgBB Indeks organ : 1,363 g

Organ Hati			
 K 1 (g/kgBB) Indeks organ : 3,351 g	 KP 1 550 mg/kgBB Indeks organ : 3,783 g	 KP 1 1750 mg/kgBB Indeks organ : 3,967 g	 KP 1 5000 mg/kgBB Indeks organ : 4,580 g
 K 2 (g/kgBB) Indeks organ : 4,197 g	 KP 2 550 mg/kgBB Indeks organ : 3,685 g	 KP 2 1750 mg/kgBB Indeks organ : 3,567 g	 KP 2 5000 mg/kgBB Indeks organ : 3,834 g
 K 3 (g/kgBB) Indeks organ : 3,339 g	 KP 3 550 mg/kgBB Indeks organ : 3,803 g	 KP 3 1750 mg/kgBB Indeks organ : 3,895 g	 KP 3 5000 mg/kgBB Indeks organ : 4,512 g
 K 4 (g/kgBB) Indeks organ : 3,169 g	 KP 4550 mg/kgBB Indeks organ : 2,844 g	 KP 4 1750 mg/kgBB Indeks organ : 3,469 g	 KP 4 5000 mg/kgBB Indeks organ : 3,687 g

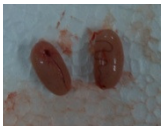
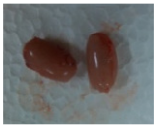
Organ Ginjal			
 K 1 Indeks organ : 0,646 g	 KP 1 550 mg/kgBB Indeks organ : 0,714 g	 KP 1 1750 mg/kgBB Indeks organ : 0,61 g	 KP 1 5000 mg/kgBB Indeks organ : 0,675 g
 K 2 Indeks organ : 0,679 g	 KP 2 550 mg/kgBB Indeks organ : 0,595 g	 KP 2 1750 mg/kgBB Indeks organ : 0,742 g	 KP 2 5000 mg/kgBB Indeks organ : 0,729 g
 K 3 Indeks organ : 0,735 g	 KP 3 550 mg/kgBB Indeks organ : 0,612 g	 KP 3 1750 mg/kgBB Indeks organ : 0,627 g	 KP 3 5000 mg/kgBB Indeks organ : 0,693 g
 K 4 Indeks organ : 0,725 g	 KP 4 550 mg/kgBB Indeks organ : 0,595 g	 KP 4 1750 mg/kgBB Indeks organ : 0,743 g	 KP 4 5000 mg/kgBB Indeks organ : 0,732 g

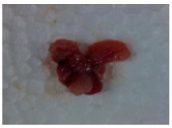
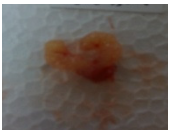
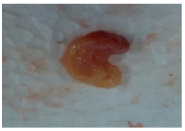
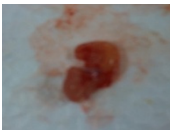
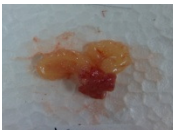
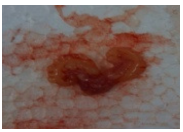
Organ Kel. adrenal			
 K1 Indeks organ : 0,033 g	 KP 1 550 mg/kgBB Indeks organ : 0,037 g	 KP 1 1750 mg/kgBB Indeks organ : 0,041 g	 KP 1 5000 mg/kgBB Indeks organ : 0,037 g
 K 2 Indeks organ : 0,037 g	 KP 2 550 mg/kgBB Indeks organ : 0,034 g	 KP 2 1750 mg/kgBB Indeks organ : 0,026 g	 KP 2 5000 mg/kgBB Indeks organ : 0,012 g
 K 3 Indeks organ : 0,025 g	 KP 3 550 mg/kgBB Indeks organ : 0,033 g	 KP 3 1750 mg/kgBB Indeks organ : 0,023 g	 KP 3 5000 mg/kgBB Indeks organ : 0,03 g
 K4 Indeks organ : 0,032 g	 KP 4 550 mg/kgBB Indeks organ : 0,025g	 KP 4 1750 mg/kgBB Indeks organ : 0,04 g	 KP 4 5000 mg/kgBB Indeks organ : 0,031 g

Organ Limpa			
 K 1 Indeks organ : 0,404 g	 KP 1 550 mg/kgBB Indeks organ : 0,334 g	 KP1 1750 mg/kgBB Indeks organ : 0,455 g	 KP 1 5000 mg/kgBB Indeks organ : 0,462 g
 K 2 Indeks organ : 0,518 g	 KP 2 550 mg/kgBB Indeks organ : 0,44 g	 KP 2 1750 mg/kgBB Indeks organ : 0,372 g	 KP 2 5000 mg/kgBB Indeks organ : 0,496 g
 K 3 Indeks organ : 0,528 g	 KP 3 550 mg/kgBB Indeks organ : 0,365 g	 KP 3 1750 mg/kgBB Indeks organ : 0,481 g	 KP 3 5000 mg/kgBB Indeks organ : 0,484 g
 K 4 Indeks organ : 0,333 g	 KP 4 550 mg/kgBB Indeks organ : 0,374 g	 KP 4 1750 mg/kgBB Indeks organ : 0,554 g	 KP 4 5000 mg/kgBB Indeks organ : 0,462 g

Organ Lambung*			
			
K 1	KP 1 550 mg/kgBB	KP 1 1750 mg/kgBB	KP 1 5000 mg/kgBB
			
K 2	KP 2 550 mg/kgBB	KP 2 1750 mg/kgBB	KP 2 5000 mg/kgBB
			
K 3	KP 3 550 mg/kgBB	KP 3 1750 mg/kgBB	KP 3 5000 mg/kgBB
			
K 4	KP 4 550 mg/kgBB	KP 4 1750 mg/kgBB	KP 4 5000 mg/kgBB

*Tidak terdapat kemerahan dan perforasi pada area sekitar lambung

Organ Testis			
 K 1 Indeks organ : 1,325 g	 KP 1 550 mg/kgBB Indeks organ : 1,452 g	 KP 1 1750 mg/kgBB Indeks organ : 1,359 g	 KP 1 5000 mg/kgBB Indeks organ : 1,243 g
 K 2 Indeks organ : 1,343 g	 KP 2 550 mg/kgBB Indeks organ : 1,434 g	 KP 2 1750 mg/kgBB Indeks organ : 1,437 g	 KP 2 5000mg/kgBB Indeks organ : 1,283 g
 K 3 (g/kgBB) Indeks organ : 1,433 g	 KP 3 550 mg/kgBB Indeks organ : 1,522 g	 KP 3 1750 mg/kgBB Indeks organ : 1,236 g	 KP 3 5000mg/kgBB Indeks organ : 1,450 g
 K 4 (g/kgBB) Indeks organ : 1,392 g	 KP 4 550 mg/kgBB Indeks organ : 1,310 g	 KP 4 1750 mg/kgBB 2 Indeks organ : 1,335 g	 KP 4 5000mg/kgBB Indeks organ : 1,477 g

Organ Vas Deferens			
			
K 1 Indeks organ : 0,309 g	KP 1 550 mg/kgBB Indeks organ : 0,608 g	KP 1 1750 mg/kgBB Indeks organ : 0,598 g	KP 1 5000 mg/kgBB Indeks organ : 0,593 g
			
K 2 Indeks organ : 0,593 g	KP 2 550 mg/kgBB 2 Indeks organ : 0,668 g	KP 2 1750 mg/kgBB Indeks organ : 0,411 g	KP 2 5000 mg/kgBB Indeks organ : 0,464 g
			
K 3 Indeks organ : 0,54 g	KP 3 550 mg/kgBB 3 Indeks organ : 0,511 g	KP 3 1750 mg/kgBB Indeks organ : 0,684 g	KP 3 5000 mg/kgBB Indeks organ : 0,537 g
			
K 4 Indeks organ : 0,464 g	KP 4 550 mg/kgBB 4 Indeks organ : 0,487 g	KP 4 1750 mg/kgBB Indeks organ : 0,659 g	KP 4 5000 mg/kgBB Indeks organ : 0,394 g

LAMPIRAN J

Hasil Analisis Data

Analisis Data Bobot Organ

Test of Homogeneity of Variances

Jantung

Levene Statistic	df1	df2	Sig.
2.380	3	12	.121

ANOVA

Jantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.014	3	.005	3.068	.069
Within Groups	.018	12	.001		
Total	.031	15			

Test of Homogeneity of Variances

ParuParu

Levene Statistic	df1	df2	Sig.
.147	3	12	.930

ANOVA

ParuParu

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.141	3	.047	1.217	.346
Within Groups	.464	12	.039		
Total	.605	15			

Test of Homogeneity of Variances

Hati

Levene Statistic	df1	df2	Sig.
.848	3	12	.494

ANOVA

Hati

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.065	3	.355	2.045	.161
Within Groups	2.084	12	.174		
Total	3.149	15			

Test of Homogeneity of Variances

Limpa

Levene Statistic	df1	df2	Sig.
3.289	3	12	.058

ANOVA

Limpa

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.023	3	.008	1.844	.193
Within Groups	.050	12	.004		
Total	.073	15			

Test of Homogeneity of Variances

Ginjal

Levene Statistic	df1	df2	Sig.
3.692	3	12	.043

ANOVA

Ginjal

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.014	3	.005	1.753	.210
Within Groups	.033	12	.003		
Total	.047	15			

Test of Homogeneity of Variances

Adrenal

Levene Statistic	df1	df2	Sig.
1.817	3	12	.198

ANOVA

Adrenal

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.000	3	.000	.348	.791
Within Groups	.001	12	.000		
Total	.001	15			

Test of Homogeneity of Variances

Testis

Levene Statistic	df1	df2	Sig.
1.671	3	12	.226

ANOVA

Testis

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.017	3	.006	.727	.555
Within Groups	.092	12	.008		
Total	.109	15			

Test of Homogeneity of Variances

VasDeferens

Levene Statistic	df1	df2	Sig.
.200	3	12	.895

ANOVA

VasDeferens

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.035	3	.012	1.036	.411
Within Groups	.135	12	.011		
Total	.171	15			

Analisis Data Aktivitas

0 menit

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
2.700	3	12	.093

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.000	3	3.667	1.189	.355
Within Groups	37.000	12	3.083		
Total	48.000	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
3.553	3	12	.048

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	228.408	3	76.136	1.016	.420
Within Groups	898.896	12	74.908		
Total	1127.303	15			

30 menit

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
2.656	3	12	.096

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.688	3	8.563	2.404	.118
Within Groups	42.750	12	3.563		
Total	68.438	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
2.699	3	12	.093

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	55.353	3	18.451	.143	.932
Within Groups	1548.496	12	129.041		
Total	1603.850	15			

1 Jam

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
.426	3	12	.738

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.500	3	2.167	.852	.492
Within Groups	30.500	12	2.542		
Total	37.000	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
5.811	3	12	.011

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	147.061	3	49.020	.650	.598
Within Groups	904.742	12	75.395		
Total	1051.802	15			

2 jam

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
4.500	3	12	.025

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.188	3	.729	.636	.606
Within Groups	13.750	12	1.146		
Total	15.938	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
.267	3	12	.848

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	114.156	3	38.052	.571	.645
Within Groups	799.784	12	66.649		
Total	913.940	15			

4 jam

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
.900	3	12	.470

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.688	3	2.229	.843	.497
Within Groups	31.750	12	2.646		
Total	38.438	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
2.016	3	12	.166

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	90.847	3	30.282	.501	.688
Within Groups	725.012	12	60.418		
Total	815.859	15			

24 jam

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
1.949	3	12	.176

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.188	3	3.729	1.023	.417
Within Groups	43.750	12	3.646		
Total	54.938	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
.891	3	12	.474

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31.793	3	10.598	.181	.907
Within Groups	702.286	12	58.524		
Total	734.079	15			

1 minggu

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
1.106	3	12	.385

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.250	3	.750	.228	.875
Within Groups	39.500	12	3.292		
Total	41.750	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
1.711	3	12	.218

ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	154.863	3	51.621	.834	.501
Within Groups	742.842	12	61.904		
Total	897.705	15			

2 minggu

Test of Homogeneity of Variances

Platform

Levene Statistic	df1	df2	Sig.
1.658	3	12	.228

ANOVA

Platform

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.500	3	6.167	.919	.461
Within Groups	80.500	12	6.708		
Total	99.000	15			

Test of Homogeneity of Variances

Menggelantung

Levene Statistic	df1	df2	Sig.
.683	3	12	.579

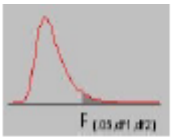
ANOVA

Menggelantung

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	132.801	3	44.267	1.765	.207
Within Groups	301.029	12	25.086		
Total	433.831	15			

LAMPIRAN K

Tabel Uji F



F Table for α = 0.05 (1/3)

df2/df1	1	2	3	4	5	6	7	8	9	10
1	161.4476	199.5000	215.7073	224.5832	230.1619	233.9860	236.7684	238.8827	240.5433	241.8817
2	18.5128	19.0000	19.1643	19.2468	19.2964	19.3295	19.3532	19.3710	19.3848	19.3959
3	10.1280	9.5521	9.2766	9.1172	9.0135	8.9406	8.8867	8.8452	8.8123	8.7855
4	7.7086	6.9443	6.5914	6.3882	6.2561	6.1631	6.0942	6.0410	5.9988	5.9644
5	6.6079	5.7861	5.4095	5.1922	5.0503	4.9503	4.8759	4.8183	4.7725	4.7351
6	5.9874	5.1433	4.7571	4.5337	4.3874	4.2839	4.2067	4.1468	4.0990	4.0600
7	5.5914	4.7374	4.3468	4.1203	3.9715	3.8660	3.7870	3.7257	3.6767	3.6365
8	5.3177	4.4590	4.0662	3.8379	3.6875	3.5806	3.5005	3.4381	3.3881	3.3472
9	5.1174	4.2565	3.8625	3.6331	3.4817	3.3738	3.2927	3.2296	3.1789	3.1373
10	4.9646	4.1028	3.7083	3.4780	3.3258	3.2172	3.1355	3.0717	3.0204	2.9782
11	4.8443	3.9823	3.5874	3.3567	3.2039	3.0946	3.0123	2.9480	2.8962	2.8536
12	4.7472	3.8853	3.4903	3.2592	3.1059	2.9961	2.9134	2.8486	2.7964	2.7534
13	4.6672	3.8056	3.4105	3.1791	3.0254	2.9153	2.8321	2.7669	2.7144	2.6710
14	4.6001	3.7389	3.3439	3.1122	2.9582	2.8477	2.7642	2.6987	2.6458	2.6022
15	4.5431	3.6823	3.2874	3.0556	2.9013	2.7905	2.7066	2.6408	2.5876	2.5437
16	4.4940	3.6337	3.2389	3.0069	2.8524	2.7413	2.6572	2.5911	2.5377	2.4935
17	4.4513	3.5915	3.1968	2.9647	2.8100	2.6987	2.6143	2.5480	2.4943	2.4499
18	4.4139	3.5546	3.1599	2.9277	2.7729	2.6613	2.5767	2.5102	2.4563	2.4117
19	4.3807	3.5219	3.1274	2.8951	2.7401	2.6283	2.5435	2.4768	2.4227	2.3779
20	4.3512	3.4928	3.0984	2.8661	2.7109	2.5990	2.5140	2.4471	2.3928	2.3479
21	4.3248	3.4668	3.0725	2.8401	2.6848	2.5727	2.4876	2.4205	2.3660	2.3210
22	4.3009	3.4434	3.0491	2.8167	2.6613	2.5491	2.4638	2.3965	2.3419	2.2967