

## LAMPIRAN

### Lampiran 1. Ethical Clearence



KOMISI ETIK PENELITIAN  
UNIVERSITAS BRAWIJAYA

KETERANGAN KELAIKAN ETIK

*"ETHICAL CLEARANCE"*

No: 140-KEP-UB-2024

KOMISI ETIK PENELITIAN (ANIMAL CARE AND USE COMMITTEE)

UNIVERSITAS BRAWIJAYA

TELAH MEMPELAJARI SECARA SEKSAMA RANCANGAN PENELITIAN YANG DIUSULKAN,  
MAKA DENGAN INI MENYATAKAN BAHWA:

PENELITIAN BERJUDUL : KAJIAN EKSTRAK LOTUS (*Nelumbo nucifera*) TERHADAP  
LEUKOSIT DAN HISTOPATOLOGI LIMFA PADA TIKUS (*Rattus norvegicus*) JANTAN AKIBAT PAPARAN NANOPLASTIK

PENELITI UTAMA : NUR FATIMAH AZZAHRA H.

UNIT/ LEMBAGA/ TEMPAT : UNIVERSITAS BRAWIJAYA

DINYATAKAN : LAIK ETIK

Malang, 03 November 2024  
Ketua Komisi Etik Penelitian  
Universitas Brawijaya



Prof. Dr. drh. Aulanni'am, DES.  
NIP. 19600903 198802 2 001

## Lampiran 2. Dokumentasi Penelitian

### a. Pembuatan Ekstrak *Nelumbo nucifera* Gaertn.



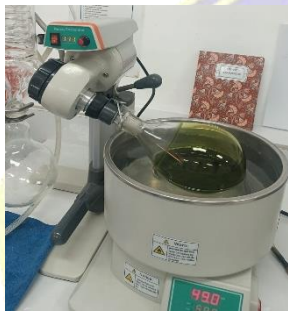
Pemotongan petal seroja



Pengeringan simplisia dengan oven



Penggilingan simplisia



Maserasi & evaporasi



Didapatkan ekstrak kental dari hasil evaporasi



Ekstrak dipindah ke dalam botol kecil

### b. Aklimatisasi Hewan Coba dan Perlakuan



Penimbangan tikus



Pembersihan kandang



Pemberian air minum



Penggantian sekam



Pemindahan kandang



Pemberian perlakuan/penyondean

### a. Pembedahan Tikus dan Pengamatan Leukosit



Prosedur anestesi tikus menggunakan klorofom



Pembedahan tikus



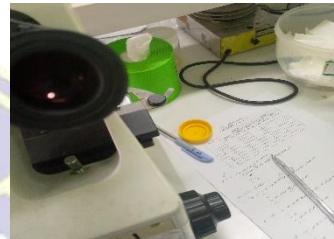
Pengambilan darah dari jantung



Pengambilan organ limpa



Pembuatan preparat apusan darah



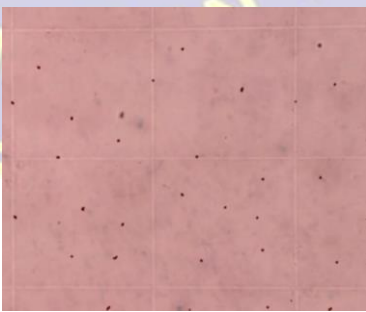
Pengamatan jumlah leukosit



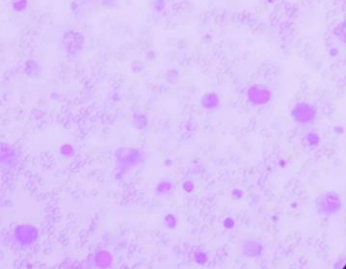
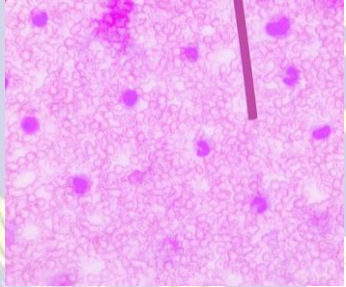
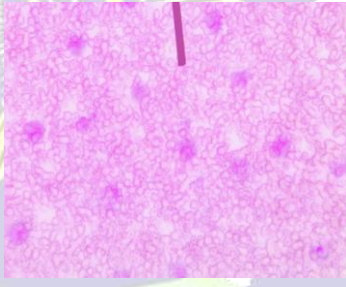
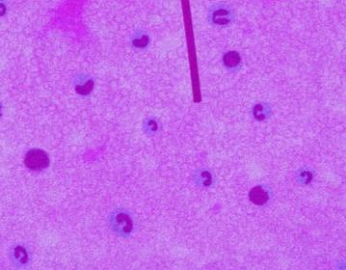
Pengamatan jenis leukosit



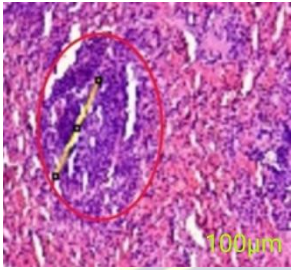
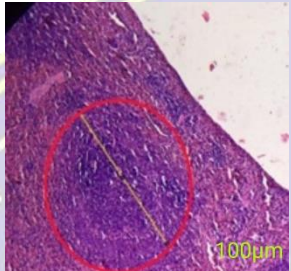
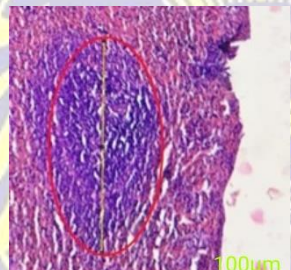
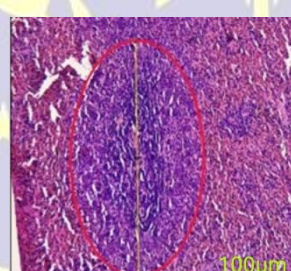
### Lampiran 3. Jumlah Leukosit

| Kelompok | Gambar                                                                               |
|----------|--------------------------------------------------------------------------------------|
| P1       |    |
| P2       |   |
| KN       |  |
| K-       |  |

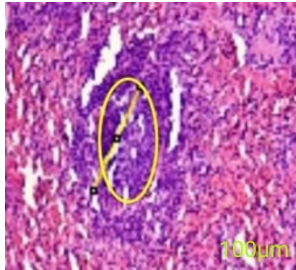
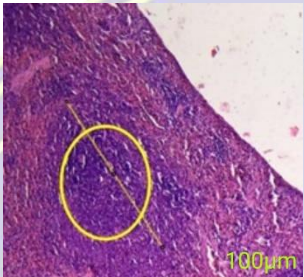
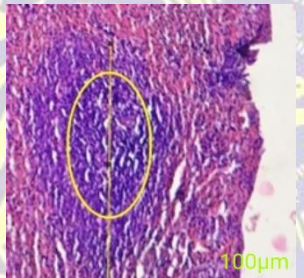
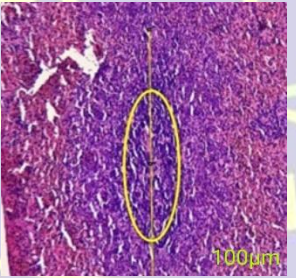
#### Lampiran 4. Jenis Leukosit

| Kelompok | Gambar                                                                               |
|----------|--------------------------------------------------------------------------------------|
| P1       |    |
| P2       |   |
| KN       |  |
| K-       |  |

**Lampiran 5. Diameter Pulpa Putih**

| Kelompok | Pulpa Putih                                                                                                                                                                                                                                                                                                                                                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P1       |  A histological section of a tooth pulp chamber stained with H&E. A red circle highlights a region of white pulp. A yellow line with arrows at both ends indicates the measurement of the white pulp diameter. A scale bar in the bottom right corner is labeled '100µm'.   |
| P2       |  A histological section of a tooth pulp chamber stained with H&E. A red circle highlights a region of white pulp. A yellow line with arrows at both ends indicates the measurement of the white pulp diameter. A scale bar in the bottom right corner is labeled '100µm'.  |
| KN       |  A histological section of a tooth pulp chamber stained with H&E. A red circle highlights a region of white pulp. A yellow line with arrows at both ends indicates the measurement of the white pulp diameter. A scale bar in the bottom right corner is labeled '100µm'. |
| K-       |  A histological section of a tooth pulp chamber stained with H&E. A red circle highlights a region of white pulp. A yellow line with arrows at both ends indicates the measurement of the white pulp diameter. A scale bar in the bottom right corner is labeled '100µm'. |

**Lampiran 6. Diameter *Germinal center***

| <b>Kelompok</b> | <b><i>Germinal center</i></b>                                                       |
|-----------------|-------------------------------------------------------------------------------------|
| P1              |    |
| P2              |   |
| KN              |  |
| K-              |  |



## Lampiran 7. Data Jumlah dan Jenis Leukosit

### a. Data Jumlah Leukosit

| Individu<br>(P1) | Bilik Hitung |    |    |    | Total Sel<br>(n) | Leukosit<br>(/mm <sup>3</sup> ) |
|------------------|--------------|----|----|----|------------------|---------------------------------|
|                  | 1            | 2  | 3  | 4  |                  |                                 |
| 1                | 36           | 39 | 32 | 33 | 140              | 7000                            |
| 2                | 41           | 45 | 38 | 40 | 164              | 8200                            |
| 3                | 34           | 43 | 35 | 36 | 148              | 7400                            |
| 4                | 47           | 37 | 41 | 43 | 168              | 8400                            |
| 5                | 42           | 48 | 39 | 41 | 170              | 8500                            |
| 6                | 35           | 40 | 33 | 42 | 150              | 7500                            |
| 7                | 46           | 31 | 45 | 44 | 166              | 8300                            |
| 8                | 38           | 40 | 36 | 34 | 148              | 7400                            |
| Individu<br>(P2) | Bilik Hitung |    |    |    | Total Sel<br>(n) | Leukosit<br>(/mm <sup>3</sup> ) |
|                  | 1            | 2  | 3  | 4  |                  |                                 |
| 1                | 35           | 40 | 30 | 35 | 140              | 7000                            |
| 2                | 45           | 38 | 42 | 40 | 165              | 8250                            |
| 3                | 32           | 41 | 36 | 31 | 140              | 7000                            |
| 4                | 48           | 35 | 40 | 45 | 168              | 8400                            |
| 5                | 40           | 45 | 39 | 46 | 170              | 8500                            |
| 6                | 33           | 42 | 37 | 38 | 150              | 7500                            |
| 7                | 47           | 30 | 43 | 48 | 168              | 8400                            |
| 8                | 39           | 44 | 35 | 37 | 155              | 7750                            |
| Individu<br>(KN) | Bilik Hitung |    |    |    | Total Sel<br>(n) | Leukosit<br>(/mm <sup>3</sup> ) |
|                  | 1            | 2  | 3  | 4  |                  |                                 |
| 1                | 15           | 25 | 20 | 20 | 80               | 4000                            |
| 2                | 28           | 19 | 26 | 27 | 100              | 5000                            |
| 3                | 18           | 21 | 25 | 16 | 80               | 4000                            |
| 4                | 22           | 28 | 17 | 25 | 92               | 4600                            |
| 5                | 30           | 25 | 27 | 28 | 110              | 5500                            |
| 6                | 20           | 23 | 29 | 19 | 91               | 4550                            |
| 7                | 24           | 26 | 30 | 21 | 101              | 5050                            |
| 8                | 27           | 15 | 22 | 26 | 90               | 4500                            |
| Individu<br>(K-) | Bilik Hitung |    |    |    | Total Sel<br>(n) | Leukosit<br>(/mm <sup>3</sup> ) |
|                  | 1            | 2  | 3  | 4  |                  |                                 |
| 1                | 50           | 55 | 45 | 50 | 200              | 10000                           |
| 2                | 58           | 62 | 55 | 50 | 225              | 11250                           |
| 3                | 52           | 48 | 55 | 50 | 205              | 10250                           |
| 4                | 60           | 55 | 62 | 58 | 235              | 11750                           |
| 5                | 53           | 57 | 49 | 51 | 210              | 10500                           |
| 6                | 60           | 59 | 57 | 56 | 232              | 11600                           |
| 7                | 55           | 60 | 52 | 53 | 220              | 11000                           |
| 8                | 59           | 56 | 61 | 58 | 234              | 11700                           |



## b. Data Jenis Leukosit

| Kelompok  | Neutrofil | Eosinofil | Basofil | Limfosit | Monosit |
|-----------|-----------|-----------|---------|----------|---------|
| P1        | 63        | 1         | 1       | 25       | 5       |
|           | 58        | 2         | 0       | 24       | 6       |
|           | 55        | 2         | 0       | 29       | 6       |
|           | 59        | 1         | 1       | 25       | 5       |
|           | 60        | 1         | 1       | 26       | 5       |
|           | 55        | 2         | 0       | 28       | 6       |
|           | 58        | 3         | 1       | 24       | 5       |
|           | 56        | 2         | 1       | 26       | 5       |
| Rata-rata | 58        | 2         | 1       | 26       | 5       |
| P2        | 60        | 2         | 0       | 24       | 5       |
|           | 56        | 2         | 0       | 27       | 6       |
|           | 59        | 2         | 1       | 26       | 6       |
|           | 55        | 1         | 1       | 28       | 5       |
|           | 58        | 2         | 1       | 25       | 5       |
|           | 57        | 2         | 0       | 26       | 5       |
|           | 61        | 2         | 0       | 27       | 5       |
|           | 54        | 2         | 1       | 29       | 6       |
| Rata-rata | 58        | 2         | 1       | 27       | 5       |
| KN        | 56        | 2         | 1       | 21       | 3       |
|           | 53        | 2         | 1       | 22       | 3       |
|           | 55        | 2         | 0       | 20       | 4       |
|           | 56        | 2         | 0       | 20       | 2       |
|           | 54        | 3         | 1       | 23       | 2       |
|           | 54        | 1         | 1       | 21       | 4       |
|           | 55        | 2         | 0       | 22       | 3       |
|           | 52        | 3         | 0       | 23       | 3       |
| Rata-rata | 54        | 2         | 1       | 22       | 3       |
| K-        | 70        | 2         | 1       | 36       | 6       |
|           | 70        | 2         | 0       | 35       | 7       |
|           | 68        | 3         | 0       | 35       | 7       |
|           | 70        | 1         | 0       | 36       | 6       |
|           | 66        | 2         | 1       | 38       | 8       |
|           | 66        | 2         | 0       | 38       | 8       |
|           | 69        | 2         | 1       | 40       | 7       |
|           | 64        | 2         | 0       | 40       | 7       |
| Rata-rata | 68        | 2         | 0       | 37       | 7       |

### Lampiran 8. Data Diameter Pulpa Putih dan *Germinal center*

#### a. Data Diameter Pulpa Putih

| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
|----------|---------------------------------------|-------------------------------------|--------------------------------------|
| P1       | 45.509                                | 26.439                              | 35.974                               |
|          | 54.018                                | 29.107                              | 41.563                               |
|          | 34.384                                | 17.712                              | 26.048                               |
|          | 39.751                                | 28.049                              | 33.900                               |
|          | 43.582                                | 22.796                              | 33.189                               |
| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
| P2       | 59.679                                | 53.071                              | 56.375                               |
|          | 8.801                                 | 52.457                              | 30.629                               |
|          | 9.044                                 | 53.916                              | 31.480                               |
|          | 64.012                                | 17.492                              | 40.752                               |
|          | 8.047                                 | 62.320                              | 35.183                               |
| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
| KN       | 52.474                                | 38.247                              | 45.361                               |
|          | 6.994                                 | 38.976                              | 22.985                               |
|          | 55.455                                | 38.809                              | 47.132                               |
|          | 42.086                                | 38.249                              | 40.167                               |
|          | 46.991                                | 37.969                              | 42.480                               |
| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
| K-       | 83.059                                | 46.661                              | 64.860                               |
|          | 94.673                                | 32.962                              | 63.818                               |
|          | 105.877                               | 54.814                              | 80.346                               |
|          | 72.561                                | 57.283                              | 64.922                               |
|          | 71.091                                | 53.838                              | 62.464                               |

a. Data Diameter *Germinal center*

| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
|----------|---------------------------------------|-------------------------------------|--------------------------------------|
| P1       | 27.499                                | 13.821                              | 20.660                               |
|          | 27.642                                | 15.637                              | 21.639                               |
|          | 18.512                                | 11.268                              | 14.890                               |
|          | 22.055                                | 14.512                              | 18.283                               |
|          | 21.477                                | 11.143                              | 16.310                               |
| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
| P2       | 38.251                                | 29.526                              | 33.888                               |
|          | 44.808                                | 26.795                              | 35.801                               |
|          | 37.219                                | 29.141                              | 33.180                               |
|          | 31.149                                | 30.618                              | 30.883                               |
|          | 52.294                                | 35.921                              | 44.107                               |
| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
| KN       | 29.514                                | 19.674                              | 24.594                               |
|          | 37.171                                | 22.223                              | 29.697                               |
|          | 34.462                                | 20.224                              | 27.343                               |
|          | 21.337                                | 21.310                              | 21.323                               |
|          | 31.361                                | 18.931                              | 25.146                               |
| Kelompok | Diameter Horizontal ( $\mu\text{m}$ ) | Diameter Vertikal ( $\mu\text{m}$ ) | Rata-rata Diameter ( $\mu\text{m}$ ) |
| K-       | 56.867                                | 21.856                              | 39.361                               |
|          | 75.491                                | 16.449                              | 45.970                               |
|          | 89.736                                | 30.861                              | 60.298                               |
|          | 43.077                                | 41.417                              | 42.247                               |
|          | 47.199                                | 31.176                              | 39.188                               |

## Lampiran 9. Hasil Uji SPSS Jumlah Leukosit

### Tests of Normality

|        | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |                   | Shapiro-Wilk |    |      |
|--------|-----------|---------------------------------|----|-------------------|--------------|----|------|
|        |           | Statistic                       | df | Sig.              | Statistic    | df | Sig. |
| Jumlah | P1        | .236                            | 8  | .200 <sup>*</sup> | .878         | 8  | .182 |
|        | P2        | .238                            | 8  | .200 <sup>*</sup> | .854         | 8  | .103 |
|        | KN        | .163                            | 8  | .200 <sup>*</sup> | .939         | 8  | .597 |
|        | K-        | .182                            | 8  | .200 <sup>*</sup> | .904         | 8  | .316 |

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Test of Homogeneity of Variance

|        |                                      | Levene Statistic | df1 | df2    | Sig. |
|--------|--------------------------------------|------------------|-----|--------|------|
| Jumlah | Based on Mean                        | .619             | 3   | 28     | .609 |
|        | Based on Median                      | .596             | 3   | 28     | .623 |
|        | Based on Median and with adjusted df | .596             | 3   | 24.164 | .624 |
|        | Based on trimmed mean                | .634             | 3   | 28     | .599 |

### Report

| Jumlah    |            |    |                |                    |           |          |          |         |
|-----------|------------|----|----------------|--------------------|-----------|----------|----------|---------|
| Perlakuan | Mean       | N  | Std. Deviation | Std. Error of Mean | Sum       | Minimum  | Maximum  | Range   |
| P1        | 7837.5000  | 8  | 573.05572      | 202.60579          | 62700.00  | 7000.00  | 8500.00  | 1500.00 |
| P2        | 7850.0000  | 8  | 628.49025      | 222.20486          | 62800.00  | 7000.00  | 8500.00  | 1500.00 |
| KN        | 4650.0000  | 8  | 518.92747      | 183.46856          | 37200.00  | 4000.00  | 5500.00  | 1500.00 |
| K-        | 11006.2500 | 8  | 685.27237      | 242.28037          | 88050.00  | 10000.00 | 11750.00 | 1750.00 |
| Total     | 7835.9375  | 32 | 2354.44790     | 416.21152          | 250750.00 | 4000.00  | 11750.00 | 7750.00 |

### ANOVA

| Jumlah         |                |    |             |         |       |
|----------------|----------------|----|-------------|---------|-------|
|                | Sum of Squares | df | Mean Square | F       | Sig.  |
| Between Groups | 161610234.4    | 3  | 53870078.13 | 147.359 | <.001 |
| Within Groups  | 10235937.50    | 28 | 365569.196  |         |       |
| Total          | 171846171.9    | 31 |             |         |       |

### Jumlah

|                        |           |   | Subset for alpha = 0.05 |           |            |
|------------------------|-----------|---|-------------------------|-----------|------------|
|                        | Perlakuan | N | 1                       | 2         | 3          |
| Tukey HSD <sup>a</sup> | KN        | 8 | 4650.0000               |           |            |
|                        | P1        | 8 |                         | 7837.5000 |            |
|                        | P2        | 8 |                         | 7850.0000 |            |
|                        | K-        | 8 |                         |           | 11006.2500 |
|                        | Sig.      |   | 1.000                   | 1.000     | 1.000      |
| Tukey B <sup>a</sup>   | KN        | 8 | 4650.0000               |           |            |
|                        | P1        | 8 |                         | 7837.5000 |            |
|                        | P2        | 8 |                         | 7850.0000 |            |
|                        | K-        | 8 |                         |           | 11006.2500 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.000.



## Lampiran 10. Hasil Uji SPSS Jenis Leukosit

### a. Neutrofil

#### Tests of Normality

|           | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |                   | Shapiro-Wilk |    |      |
|-----------|-----------|---------------------------------|----|-------------------|--------------|----|------|
|           |           | Statistic                       | df | Sig.              | Statistic    | df | Sig. |
| Neutrofil | P1        | .143                            | 8  | .200 <sup>*</sup> | .928         | 8  | .500 |
|           | P2        | .105                            | 8  | .200 <sup>*</sup> | .975         | 8  | .933 |
|           | KN        | .171                            | 8  | .200 <sup>*</sup> | .934         | 8  | .557 |
|           | K-        | .198                            | 8  | .200 <sup>*</sup> | .866         | 8  | .139 |

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variance

|           |                                      | Levene Statistic | df1 | df2    | Sig. |
|-----------|--------------------------------------|------------------|-----|--------|------|
| Neutrofil | Based on Mean                        | .970             | 3   | 28     | .421 |
|           | Based on Median                      | .867             | 3   | 28     | .470 |
|           | Based on Median and with adjusted df | .867             | 3   | 22.333 | .473 |
|           | Based on trimmed mean                | .983             | 3   | 28     | .415 |

#### Report

##### Neutrofil

| Perlakuan | Mean    | N  | Std. Deviation | Std. Error of Mean | Sum     | Minimum | Maximum | Range |
|-----------|---------|----|----------------|--------------------|---------|---------|---------|-------|
| P1        | 58.0000 | 8  | 2.72554        | .96362             | 464.00  | 55.00   | 63.00   | 8.00  |
| P2        | 57.5000 | 8  | 2.44949        | .86603             | 460.00  | 54.00   | 61.00   | 7.00  |
| KN        | 54.3750 | 8  | 1.40789        | .49776             | 435.00  | 52.00   | 56.00   | 4.00  |
| K-        | 67.8750 | 8  | 2.29518        | .81147             | 543.00  | 64.00   | 70.00   | 6.00  |
| Total     | 59.4375 | 32 | 5.58187        | .98674             | 1902.00 | 52.00   | 70.00   | 18.00 |

#### ANOVA

##### Neutrofil

|                | Sum of Squares | df | Mean Square | F      | Sig.  |
|----------------|----------------|----|-------------|--------|-------|
| Between Groups | 821.125        | 3  | 273.708     | 52.945 | <.001 |
| Within Groups  | 144.750        | 28 | 5.170       |        |       |
| Total          | 965.875        | 31 |             |        |       |

#### Neutrofil

|                        |           |   | Subset for alpha = 0.05 |         |         |
|------------------------|-----------|---|-------------------------|---------|---------|
|                        | Perlakuan | N | 1                       | 2       | 3       |
| Tukey HSD <sup>a</sup> | KN        | 8 | 54.3750                 |         |         |
|                        | P2        | 8 |                         | 57.5000 |         |
|                        | P1        | 8 |                         | 58.0000 |         |
|                        | K-        | 8 |                         |         | 67.8750 |
|                        | Sig.      |   | 1.000                   | .971    | 1.000   |
| Tukey B <sup>a</sup>   | KN        | 8 | 54.3750                 |         |         |
|                        | P2        | 8 |                         | 57.5000 |         |
|                        | P1        | 8 |                         | 58.0000 |         |
|                        | K-        | 8 |                         |         | 67.8750 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.000.

## b.Eosinofil

## Tests of Normality

|           | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |       |
|-----------|-----------|---------------------------------|----|-------|--------------|----|-------|
|           |           | Statistic                       | df | Sig.  | Statistic    | df | Sig.  |
| Eosinofil | P1        | .263                            | 8  | .109  | .827         | 8  | .056  |
|           | P2        | .513                            | 8  | <.001 | .418         | 8  | <.001 |
|           | KN        | .327                            | 8  | .012  | .810         | 8  | .037  |
|           | K-        | .375                            | 8  | .001  | .732         | 8  | .005  |

a. Lilliefors Significance Correction

## Test of Homogeneity of Variance

|           |                                      | Levene Statistic | df1 | df2    | Sig. |
|-----------|--------------------------------------|------------------|-----|--------|------|
| Eosinofil | Based on Mean                        | 1.368            | 3   | 28     | .273 |
|           | Based on Median                      | .933             | 3   | 28     | .438 |
|           | Based on Median and with adjusted df | .933             | 3   | 25.964 | .439 |
|           | Based on trimmed mean                | 1.606            | 3   | 28     | .210 |

## Report

| Eosinofil |        |    |                |                    |       |         |         |       |
|-----------|--------|----|----------------|--------------------|-------|---------|---------|-------|
| Perlakuan | Mean   | N  | Std. Deviation | Std. Error of Mean | Sum   | Minimum | Maximum | Range |
| P1        | 1.7500 | 8  | .70711         | .25000             | 14.00 | 1.00    | 3.00    | 2.00  |
| P2        | 1.8750 | 8  | .35355         | .12500             | 15.00 | 1.00    | 2.00    | 1.00  |
| KN        | 2.1250 | 8  | .64087         | .22658             | 17.00 | 1.00    | 3.00    | 2.00  |
| K-        | 2.0000 | 8  | .53452         | .18898             | 16.00 | 1.00    | 3.00    | 2.00  |
| Total     | 1.9375 | 32 | .56440         | .09977             | 62.00 | 1.00    | 3.00    | 2.00  |

Test Statistics<sup>a,b</sup>

| Eosinofil        |       |
|------------------|-------|
| Kruskal-Wallis H | 1.972 |
| df               | 3     |
| Asymp. Sig.      | .578  |

a. Kruskal Wallis Test

b. Grouping Variable:  
Perlakuan

## Eosinofil

| Tukey HSD <sup>a</sup> |   |                         |
|------------------------|---|-------------------------|
| Perlakuan              | N | Subset for alpha = 0.05 |
| P1                     | 8 | 1                       |
| P2                     | 8 | 1.7500                  |
| K-                     | 8 | 1.8750                  |
| KN                     | 8 | 2.0000                  |
| Sig.                   |   | 2.1250                  |
|                        |   | .568                    |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.000.

## ANOVA

| Eosinofil      |                |    |             |      |      |
|----------------|----------------|----|-------------|------|------|
|                | Sum of Squares | df | Mean Square | F    | Sig. |
| Between Groups | .625           | 3  | .208        | .631 | .601 |
| Within Groups  | 9.250          | 28 | .330        |      |      |
| Total          | 9.875          | 31 |             |      |      |

## c. Basofil

## Tests of Normality

|         | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |       |
|---------|-----------|---------------------------------|----|-------|--------------|----|-------|
|         |           | Statistic                       | df | Sig.  | Statistic    | df | Sig.  |
| Basofil | P1        | .391                            | 8  | <.001 | .641         | 8  | <.001 |
|         | P2        | .325                            | 8  | .013  | .665         | 8  | <.001 |
|         | KN        | .325                            | 8  | .013  | .665         | 8  | <.001 |
|         | K-        | .391                            | 8  | <.001 | .641         | 8  | <.001 |

a. Lilliefors Significance Correction

## Test of Homogeneity of Variance

|         |                                      | Levene    | df1 | df2    | Sig. |
|---------|--------------------------------------|-----------|-----|--------|------|
|         |                                      | Statistic |     |        |      |
| Basofil | Based on Mean                        | .311      | 3   | 28     | .817 |
|         | Based on Median                      | .311      | 3   | 28     | .817 |
|         | Based on Median and with adjusted df | .311      | 3   | 14.000 | .817 |
|         | Based on trimmed mean                | .311      | 3   | 28     | .817 |

Test Statistics<sup>a,b</sup>

| Basofil          |      |
|------------------|------|
| Kruskal-Wallis H | .969 |
| df               | 3    |
| Asymp. Sig.      | .809 |

a. Kruskal Wallis Test

b. Grouping Variable:  
Perlakuan

## Report

| Basofil   |       |    |                |                    |       |         |         |       |
|-----------|-------|----|----------------|--------------------|-------|---------|---------|-------|
| Perlakuan | Mean  | N  | Std. Deviation | Std. Error of Mean | Sum   | Minimum | Maximum | Range |
| P1        | .6250 | 8  | .51755         | .18298             | 5.00  | .00     | 1.00    | 1.00  |
| P2        | .5000 | 8  | .53452         | .18898             | 4.00  | .00     | 1.00    | 1.00  |
| KN        | .5000 | 8  | .53452         | .18898             | 4.00  | .00     | 1.00    | 1.00  |
| K-        | .3750 | 8  | .51755         | .18298             | 3.00  | .00     | 1.00    | 1.00  |
| Total     | .5000 | 32 | .50800         | .08980             | 16.00 | .00     | 1.00    | 1.00  |

## Basofil

|                        |           | Subset for alpha = 0.05 |       |
|------------------------|-----------|-------------------------|-------|
|                        |           | 1                       |       |
| Tukey HSD <sup>a</sup> | Perlakuan | N                       |       |
|                        | K-        | 8                       | .3750 |
|                        | P2        | 8                       | .5000 |
|                        | KN        | 8                       | .5000 |
|                        | P1        | 8                       | .6250 |
|                        | Sig.      |                         | .778  |
| Tukey B <sup>a</sup>   | K-        | 8                       | .3750 |
|                        | P2        | 8                       | .5000 |
|                        | KN        | 8                       | .5000 |
|                        | P1        | 8                       | .6250 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.000.

## d.Limfosit

## Tests of Normality

|          | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |                   | Shapiro-Wilk |    |      |
|----------|-----------|---------------------------------|----|-------------------|--------------|----|------|
|          |           | Statistic                       | df | Sig.              | Statistic    | df | Sig. |
| Limfosit | P1        | .222                            | 8  | .200 <sup>*</sup> | .894         | 8  | .255 |
|          | P2        | .128                            | 8  | .200 <sup>*</sup> | .983         | 8  | .975 |
|          | KN        | .162                            | 8  | .200 <sup>*</sup> | .897         | 8  | .274 |
|          | K-        | .229                            | 8  | .200 <sup>*</sup> | .871         | 8  | .155 |

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## Test of Homogeneity of Variance

|          |                                      | Levene Statistic | df1 | df2    | Sig. |
|----------|--------------------------------------|------------------|-----|--------|------|
| Limfosit | Based on Mean                        | 1.080            | 3   | 28     | .373 |
|          | Based on Median                      | 1.000            | 3   | 28     | .407 |
|          | Based on Median and with adjusted df | 1.000            | 3   | 23.380 | .410 |
|          | Based on trimmed mean                | 1.078            | 3   | 28     | .374 |

## ANOVA

Limfosit

|                | Sum of Squares | df | Mean Square | F       | Sig.  |
|----------------|----------------|----|-------------|---------|-------|
| Between Groups | 1075.094       | 3  | 358.365     | 124.842 | <.001 |
| Within Groups  | 80.375         | 28 | 2.871       |         |       |
| Total          | 1155.469       | 31 |             |         |       |

## Limfosit

|                        |      | Subset for alpha = 0.05 |         |         |
|------------------------|------|-------------------------|---------|---------|
| Perlakuan              | N    | 1                       | 2       | 3       |
| Tukey HSD <sup>a</sup> | KN   | 8                       | 21.5000 |         |
|                        | P1   | 8                       |         | 25.8750 |
|                        | P2   | 8                       |         | 26.5000 |
|                        | K-   | 8                       |         | 37.2500 |
|                        | Sig. |                         | 1.000   | .881    |
| Tukey B <sup>a</sup>   | KN   | 8                       | 21.5000 |         |
|                        | P1   | 8                       |         | 25.8750 |
|                        | P2   | 8                       |         | 26.5000 |
|                        | K-   | 8                       |         | 37.2500 |
|                        | Sig. |                         | 1.000   | .881    |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.000.

## Report

Limfosit

| Perlakuan | Mean    | N  | Std. Deviation | Std. Error of Mean | Sum    | Minimum | Maximum | Range |
|-----------|---------|----|----------------|--------------------|--------|---------|---------|-------|
| P1        | 25.8750 | 8  | 1.80772        | .63913             | 207.00 | 24.00   | 29.00   | 5.00  |
| P2        | 26.5000 | 8  | 1.60357        | .56695             | 212.00 | 24.00   | 29.00   | 5.00  |
| KN        | 21.5000 | 8  | 1.19523        | .42258             | 172.00 | 20.00   | 23.00   | 3.00  |
| K-        | 37.2500 | 8  | 2.05287        | .72580             | 298.00 | 35.00   | 40.00   | 5.00  |
| Total     | 27.7813 | 32 | 6.10518        | 1.07925            | 889.00 | 20.00   | 40.00   | 20.00 |



## e. Monosit

## Tests of Normality

|         | Perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |       |
|---------|-----------|---------------------------------|----|-------|--------------|----|-------|
|         |           | Statistic                       | df | Sig.  | Statistic    | df | Sig.  |
| Monosit | P1        | .391                            | 8  | <,001 | .641         | 8  | <,001 |
|         | P2        | .391                            | 8  | <,001 | .641         | 8  | <,001 |
|         | KN        | .250                            | 8  | .150  | .849         | 8  | .093  |
|         | K-        | .250                            | 8  | .150  | .849         | 8  | .093  |

a. Lilliefors Significance Correction

## Test of Homogeneity of Variance

|         |                                      | Levene Statistic | df1 | df2    | Sig. |
|---------|--------------------------------------|------------------|-----|--------|------|
| Monosit | Based on Mean                        | .017             | 3   | 28     | .997 |
|         | Based on Median                      | .151             | 3   | 28     | .928 |
|         | Based on Median and with adjusted df | .151             | 3   | 27.971 | .928 |
|         | Based on trimmed mean                | .021             | 3   | 28     | .996 |

## Report

| Monosit   |        |    |                |                    |        |         |         |       |
|-----------|--------|----|----------------|--------------------|--------|---------|---------|-------|
| Perlakuan | Mean   | N  | Std. Deviation | Std. Error of Mean | Sum    | Minimum | Maximum | Range |
| P1        | 5.3750 | 8  | .51755         | .18298             | 43.00  | 5.00    | 6.00    | 1.00  |
| P2        | 5.3750 | 8  | .51755         | .18298             | 43.00  | 5.00    | 6.00    | 1.00  |
| KN        | 3.0000 | 8  | .75593         | .26726             | 24.00  | 2.00    | 4.00    | 2.00  |
| K-        | 7.0000 | 8  | .75593         | .26726             | 56.00  | 6.00    | 8.00    | 2.00  |
| Total     | 5.1875 | 32 | 1.57475        | .27838             | 166.00 | 2.00    | 8.00    | 6.00  |

Test Statistics<sup>a,b</sup>

## Monosit

|                  |        |
|------------------|--------|
| Kruskal-Wallis H | 25.914 |
| df               | 3      |
| Asymp. Sig.      | <,001  |

a. Kruskal Wallis Test

b. Grouping Variable:  
Perlakuan

## UJI MANN WHITNEY (P2,KN)

## Ranks

|         |       | Perlakuan | N  | Mean Rank | Sum of Ranks |
|---------|-------|-----------|----|-----------|--------------|
| Monosit | P2    |           | 8  | 12.50     | 100.00       |
|         | KN    |           | 8  | 4.50      | 36.00        |
|         | Total |           | 16 |           |              |

Test Statistics<sup>a</sup>

## Monosit

|                                |                    |
|--------------------------------|--------------------|
| Mann-Whitney U                 | .000               |
| Wilcoxon W                     | 36.000             |
| Z                              | -3.453             |
| Asymp. Sig. (2-tailed)         | <,001              |
| Exact Sig. [2*(1-tailed Sig.)] | <,001 <sup>b</sup> |

a. Grouping Variable: Perlakuan

b. Not corrected for ties.



## Lampiran 11. Hasil Uji SPSS Diameter Pulpa Putih

### Report

DiameterPP

| Perlakuan | Mean       | N  | Std. Deviation | Std. Error of Mean | Sum       | Minimum  | Maximum  | Range    |
|-----------|------------|----|----------------|--------------------|-----------|----------|----------|----------|
| P1        | 34134.8000 | 5  | 5588.08587     | 2499.06797         | 170674.00 | 26048.00 | 41563.00 | 15515.00 |
| P2        | 38883.8000 | 5  | 10560.37578    | 4722.74362         | 194419.00 | 30629.00 | 56375.00 | 25746.00 |
| KN        | 39625.0000 | 5  | 9677.17849     | 4327.76579         | 198125.00 | 22985.00 | 47132.00 | 24147.00 |
| K-        | 67282.0000 | 5  | 7370.82424     | 3296.33281         | 336410.00 | 62464.00 | 80346.00 | 17882.00 |
| Total     | 44981.4000 | 20 | 15503.96637    | 3466.79227         | 899628.00 | 22985.00 | 80346.00 | 57361.00 |

### Tests of Normality

| Perlakuan     | Kolmogorov-Smirnov <sup>a</sup> |    |                   | Shapiro-Wilk |    |      |
|---------------|---------------------------------|----|-------------------|--------------|----|------|
|               | Statistic                       | df | Sig.              | Statistic    | df | Sig. |
| DiameterPP P1 | .233                            | 5  | .200 <sup>*</sup> | .966         | 5  | .848 |
| P2            | .237                            | 5  | .200 <sup>*</sup> | .839         | 5  | .163 |
| KN            | .322                            | 5  | .098              | .799         | 5  | .080 |
| K-            | .426                            | 5  | .003              | .679         | 5  | .006 |

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Test of Homogeneity of Variance

|            |                                      | Levene Statistic | df1 | df2    | Sig. |
|------------|--------------------------------------|------------------|-----|--------|------|
| DiameterPP | Based on Mean                        | .563             | 3   | 16     | .647 |
|            | Based on Median                      | .286             | 3   | 16     | .835 |
|            | Based on Median and with adjusted df | .286             | 3   | 13.422 | .835 |
|            | Based on trimmed mean                | .481             | 3   | 16     | .700 |

### Test Statistics<sup>a,b</sup>

| DiameterPP       |        |
|------------------|--------|
| Kruskal-Wallis H | 11.549 |
| df               | 3      |
| Asymp. Sig.      | .009   |

a. Kruskal Wallis Test

b. Grouping Variable:  
Perlakuan



## UJI MANN WHITNEY

P2,KN

### Test Statistics<sup>a</sup>

|          |           | Ranks |           |              |
|----------|-----------|-------|-----------|--------------|
|          | Perlakuan | N     | Mean Rank | Sum of Ranks |
| diameter | P2        | 5     | 5.00      | 25.00        |
|          | KN        | 5     | 6.00      | 30.00        |
|          | Total     | 10    |           |              |

| diameter                       |                   |
|--------------------------------|-------------------|
| Mann-Whitney U                 | 10.000            |
| Wilcoxon W                     | 25.000            |
| Z                              | -.522             |
| Asymp. Sig. (2-tailed)         | .602              |
| Exact Sig. [2*(1-tailed Sig.)] | .690 <sup>b</sup> |

a. Grouping Variable: Perlakuan

b. Not corrected for ties.

P2,K-

## Ranks

|            | Perlakuan | N  | Mean Rank | Sum of Ranks |
|------------|-----------|----|-----------|--------------|
| DiameterPP | P2        | 5  | 3.00      | 15.00        |
|            | K-        | 5  | 8.00      | 40.00        |
|            | Total     | 10 |           |              |

Test Statistics<sup>a</sup>

|                                | DiameterPP        |
|--------------------------------|-------------------|
| Mann-Whitney U                 | .000              |
| Wilcoxon W                     | 15.000            |
| Z                              | -2.611            |
| Asymp. Sig. (2-tailed)         | .009              |
| Exact Sig. [2*(1-tailed Sig.)] | .008 <sup>b</sup> |

a. Grouping Variable: Perlakuan

b. Not corrected for ties.

P2,P1

## Ranks

|            | Perlakuan | N  | Mean Rank | Sum of Ranks |
|------------|-----------|----|-----------|--------------|
| DiameterPP | P2        | 5  | 5.80      | 29.00        |
|            | P1        | 5  | 5.20      | 26.00        |
|            | Total     | 10 |           |              |

Test Statistics<sup>a</sup>

|                                | DiameterPP        |
|--------------------------------|-------------------|
| Mann-Whitney U                 | 11.000            |
| Wilcoxon W                     | 26.000            |
| Z                              | -.313             |
| Asymp. Sig. (2-tailed)         | .754              |
| Exact Sig. [2*(1-tailed Sig.)] | .841 <sup>b</sup> |

a. Grouping Variable: Perlakuan

b. Not corrected for ties.

KN,K-

## Ranks

|            | Perlakuan | N  | Mean Rank | Sum of Ranks |
|------------|-----------|----|-----------|--------------|
| DiameterPP | KN        | 5  | 3.00      | 15.00        |
|            | K-        | 5  | 8.00      | 40.00        |
|            | Total     | 10 |           |              |

Test Statistics<sup>a</sup>

|                                | DiameterPP        |
|--------------------------------|-------------------|
| Mann-Whitney U                 | .000              |
| Wilcoxon W                     | 15.000            |
| Z                              | -2.611            |
| Asymp. Sig. (2-tailed)         | .009              |
| Exact Sig. [2*(1-tailed Sig.)] | .008 <sup>b</sup> |

a. Grouping Variable: Perlakuan

b. Not corrected for ties.

KN,P1

## Ranks

|            | Perlakuan | N  | Mean Rank | Sum of Ranks |
|------------|-----------|----|-----------|--------------|
| DiameterPP | KN        | 5  | 6.80      | 34.00        |
|            | P1        | 5  | 4.20      | 21.00        |
|            | Total     | 10 |           |              |

Test Statistics<sup>a</sup>

|                                | DiameterPP        |
|--------------------------------|-------------------|
| Mann-Whitney U                 | 6.000             |
| Wilcoxon W                     | 21.000            |
| Z                              | -1.358            |
| Asymp. Sig. (2-tailed)         | .175              |
| Exact Sig. [2*(1-tailed Sig.)] | .222 <sup>b</sup> |

a. Grouping Variable: Perlakuan

b. Not corrected for ties.

K-,P1

| Ranks      |           |    |           |              | Test Statistics <sup>a</sup>   |                   |
|------------|-----------|----|-----------|--------------|--------------------------------|-------------------|
|            |           |    |           |              | DiameterPP                     |                   |
|            | Perlakuan | N  | Mean Rank | Sum of Ranks | Mann-Whitney U                 | .000              |
| DiameterPP | K-        | 5  | 8.00      | 40.00        | Wilcoxon W                     | 15.000            |
|            | P1        | 5  | 3.00      | 15.00        | Z                              | -2.611            |
|            | Total     | 10 |           |              | Asymp. Sig. (2-tailed)         | .009              |
|            |           |    |           |              | Exact Sig. [2*(1-tailed Sig.)] | .008 <sup>b</sup> |

a. Grouping Variable: Perlakuan  
b. Not corrected for ties.





## Lampiran 12. Hasil Uji SPSS Diameter Geminal Center

### Tests of Normality

|            |           | Kolmogorov-Smirnov <sup>a</sup> |    |                   | Shapiro-Wilk |    |      |
|------------|-----------|---------------------------------|----|-------------------|--------------|----|------|
|            | Perlakuan | Statistic                       | df | Sig.              | Statistic    | df | Sig. |
| DiameterGC | P1        | .191                            | 5  | .200 <sup>*</sup> | .949         | 5  | .730 |
|            | P2        | .282                            | 5  | .200 <sup>*</sup> | .858         | 5  | .222 |
|            | KN        | .172                            | 5  | .200 <sup>*</sup> | .987         | 5  | .966 |
|            | K-        | .275                            | 5  | .200 <sup>*</sup> | .795         | 5  | .073 |

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Test of Homogeneity of Variance

|            |                                      | Levene Statistic | df1 | df2   | Sig. |
|------------|--------------------------------------|------------------|-----|-------|------|
| DiameterGC | Based on Mean                        | 1.518            | 3   | 16    | .248 |
|            | Based on Median                      | .668             | 3   | 16    | .584 |
|            | Based on Median and with adjusted df | .668             | 3   | 7.486 | .597 |
|            | Based on trimmed mean                | 1.376            | 3   | 16    | .286 |

### Report

DiameterGC

| Perlakuan | Mean    | N  | Std. Deviation | Std. Error of Mean | Sum    | Minimum | Maximum | Range |
|-----------|---------|----|----------------|--------------------|--------|---------|---------|-------|
| P1        | 18.3564 | 5  | 2.84126        | 1.27065            | 91.78  | 14.89   | 21.64   | 6.75  |
| P2        | 35.5718 | 5  | 5.08534        | 2.27424            | 177.86 | 30.88   | 44.11   | 13.22 |
| KN        | 25.6206 | 5  | 3.13577        | 1.40236            | 128.10 | 21.32   | 29.70   | 8.37  |
| K-        | 45.4128 | 5  | 8.76462        | 3.91966            | 227.06 | 39.19   | 60.30   | 21.11 |
| Total     | 31.2404 | 20 | 11.62649       | 2.59976            | 624.81 | 14.89   | 60.30   | 45.41 |

### ANOVA

DiameterGC

|                | Sum of Squares | df | Mean Square | F      | Sig.  |
|----------------|----------------|----|-------------|--------|-------|
| Between Groups | 2085.988       | 3  | 695.329     | 23.065 | <.001 |
| Within Groups  | 482.341        | 16 | 30.146      |        |       |
| Total          | 2568.328       | 19 |             |        |       |

### DiameterGC

|                      |    | Subset for alpha = 0.05 |         |         |
|----------------------|----|-------------------------|---------|---------|
| Perlakuan            | N  | 1                       | 2       | 3       |
| Tukey B <sup>a</sup> | P1 | 5                       | 18.3564 |         |
|                      | KN | 5                       | 25.6206 |         |
|                      | P2 | 5                       |         | 35.5718 |
|                      | K- | 5                       |         | 45.4128 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.

### Lampiran 13. Jadwal Pelaksanaan Penelitian

| Minggu | Agustus | September | Oktober | November | Desember | Februari |
|--------|---------|-----------|---------|----------|----------|----------|
| 1      |         |           |         |          |          |          |
| 2      |         |           |         |          |          |          |
| 3      |         |           |         |          |          |          |
| 4      |         |           |         |          |          |          |

Keterangan:

|  |                                           |
|--|-------------------------------------------|
|  | : Aklimatisasi hewan uji coba             |
|  | : Pemberian perlakuan                     |
|  | : Pembedahan                              |
|  | : Analisa hasil jumlah dan jenis leukosit |
|  | : Analisa hasil histopatologi limpa       |

