

## Daftar Pustaka

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Lampiran 1. *Ethical Clearance*

|   |  |   |
|---|--|---|
|  | <p>KOMISI ETIK PENELITIAN KESEHATAN (KEPK)<br/>FAKULTAS KEDOKTERAN UNIVERSITAS DIPONEGORO<br/>DAN RSUP dr KARIADI SEMARANG<br/>Sekretariat : Kantor Dekanat FK Undip Lt.3<br/>Jl. Dr. Soetomo 18. Semarang<br/>Telp.024-8311523/Fax. 024-8446905</p> |  |
|---|--|---|

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**ETHICAL CLEARANCE**  
**No.277 /EC/FK-RSDK/2014**

Komisi Etik Penelitian Kesehatan Fakultas Kedokteran Universitas Diponegoro/ RSUP. Dr. Kariadi Semarang, setelah membaca dan menelaah USULAN Penelitian dengan judul :

**PENGARUH PAPARAN OBAT NYAMUK TERHADAP GAMBARAN HISTOPATOLOGI SEL SERTOLI PADA TIKUS SPRAGUE DAWLEY**

Peneliti Utama : Azka Tajussyarof El Muzakka

Pembimbing : 1. Dr.dr. Tri Indah Winami, M.Si.Med, PA  
2. dr. Ika Pawitra Miranti, M.Kes, Sp.PA

Penelitian : Dilaksanakan di Laboratorium Patologi Anatomi Rumah Sakit Dr. Kariadi Semarang.

Setuju untuk dilaksanakan, dengan memperhatikan prinsip-prinsip yang dinyatakan dalam Deklarasi Helsinki 1975, yang diamended di Seoul 2008 dan Pedoman Nasional Etik Penelitian Kesehatan (PNEPK) Departemen Kesehatan RI 2011

Pada laporan akhir peneliti harus melampirkan cara pemeliharaan & dekapitasi hewan coba dan melaporkan ke KEPK bahwa penelitian sudah selesai di lampiri Abstrak Penelitian.

Semarang, 14 MAY 2014

  
Ketua,  
Prof.Dr.dr.Suprihati, M.Sc, Sp.THT-KL(K)  
NIP. 19500621197703 2 001

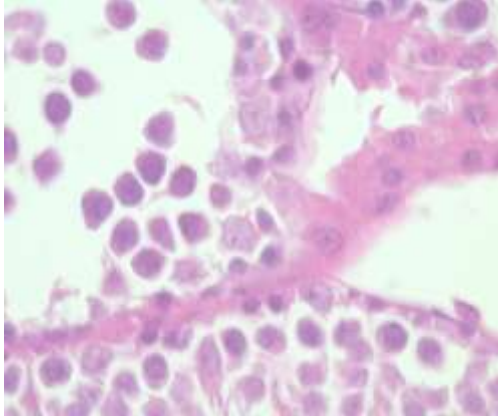
## **Lampiran 2. Cara kerja sediaan histopatologi**

- 1) Menyiapkan wadah yang di isi dengan larutan formalin 10% bufer dengan volume minimal 5 kali volume jaringan
- 2) Testis yang telah diambil, segera di masukkan kedalam wadah tersebut
- 3) Memberi identitas pada semua wadah dengan identitas masing-masing kelompok perlakuan
- 4) Dikirim ke Sentra Diagnostik Patologi Anatomi disertai dengan formulir pengantar
- 5) Preparat kemudian dipotong dengan ketebalan maksimal 3-4 cm
- 6) Setelah dipotong diletakkan di dalam kaset jaringan, dan dimasukkan ke wadah yang berisi formalin 10% bufer
- 7) Dilakukan proses pembuatan blok parafin, kemudian didinginkan di dalam lemari es
- 8) Blok parafin dipotong menjadi lebih tipis menggunakan microtome sesuai kebutuhan
- 9) Pita parafin dimekarkan dengan ditempelkan langsung pada kaca benda yang telah dibasahi dengan air
- 10) Dimulai proses pengecatan dengan Hematoxylin Eosin
- 11) Preparat diberi cat Hematoxylin
- 12) Kemudian di diferensiasi menggunakan air kran
- 13) Diberi cat Eosin
- 14) Kemudian di dehidrasi menggunakan alkohol 70%
- 15) Pada prosesl 'clearing' menggunakan larutan xylol
- 16) Mouting adalah tahan terakhir yang kemudian dapat diamati di mikroskop

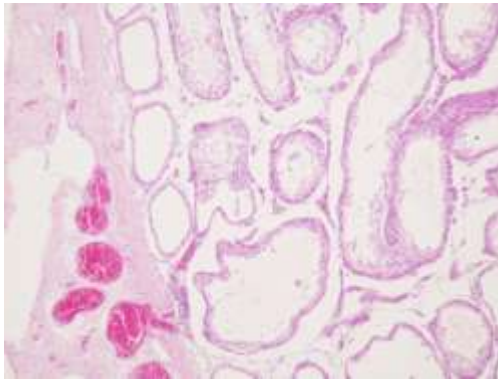
**Lampiran 3. Hasil pengamatan sel Sertoli**

| <b>Kelompok</b> | <b>Lapang Pandang</b> |          |          |          |          | <b>Jumlah Seluruh lapang pandang</b> |
|-----------------|-----------------------|----------|----------|----------|----------|--------------------------------------|
|                 | <b>1</b>              | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |                                      |
| I.29.09.1       | 66                    | 76       | 87       | 87       | 94       | 407                                  |
| I.08.10.6       | 33                    | 36       | 26       | 29       | 35       | 176                                  |
| I.08.10.7       | 55                    | 54       | 38       | 61       | 58       | 196                                  |
| I.0810.10       | 43                    | 40       | 44       | 58       | 40       | 225                                  |
| I.08.10.5       | 74                    | 31       | 48       | 43       | 59       | 255                                  |
| III.25.10.4     | 31                    | 45       | 31       | 23       | 39       | 137                                  |
| III.27.10.8     | 29                    | 34       | 18       | 14       | 11       | 106                                  |
| III.29.10.14    | 19                    | 21       | 24       | 21       | 14       | 98                                   |
| III.27.10.10    | 47                    | 24       | 30       | 41       | 35       | 157                                  |
| III.27.10.11    | 31                    | 18       | 16       | 23       | 15       | 168                                  |
| IV.1.11.15      | 23                    | 12       | 18       | 14       | 17       | 94                                   |
| IV.31.10.14     | 19                    | 29       | 28       | 16       | 22       | 103                                  |
| IV.1.11.16      | 35                    | 18       | 31       | 28       | 32       | 144                                  |
| IV.31.10.13     | 28                    | 28       | 30       | 27       | 30       | 143                                  |
| IV.27.10.9      | 28                    | 50       | 52       | 64       | 34       | 228                                  |
| V.15.10.10      | 30                    | 38       | 21       | 47       | 38       | 174                                  |
| V.20.10.15      | 25                    | 23       | 33       | 25       | 22       | 177                                  |
| V.20.10.18      | 32                    | 34       | 22       | 42       | 36       | 174                                  |
| V.15.10.7       | 37                    | 45       | 28       | 41       | 57       | 208                                  |
| V.20.10         | 35                    | 36       | 36       | 45       | 40       | 192                                  |
| VI.04.10.1      | 22                    | 24       | 45       | 39       | 27       | 167                                  |
| VI.08.10.5      | 36                    | 33       | 26       | 57       | 30       | 182                                  |
| VI.28.10.8      | 38                    | 41       | 45       | 48       | 40       | 185                                  |
| VI.08.10.4      | 46                    | 30       | 47       | 46       | 43       | 214                                  |
| VI.04.10.2      | 21                    | 34       | 30       | 30       | 18       | 133                                  |

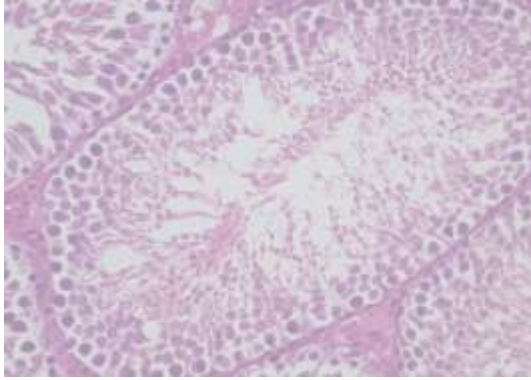
Lampiran 4. *Gambar histopatologis testis/sel sertoli Tikus Sprague Dawley*



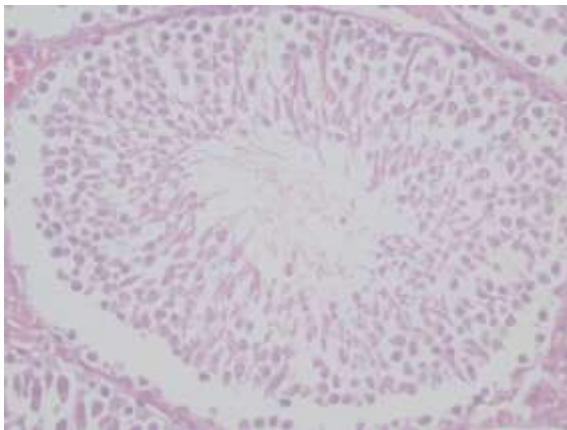
Gambar histopatologis testis tikus kelompok kontrol dengan perbesaran 1000x.  
(1) Sel Sertoli. (2) Sel Leydig. (3) sel spermatogonia



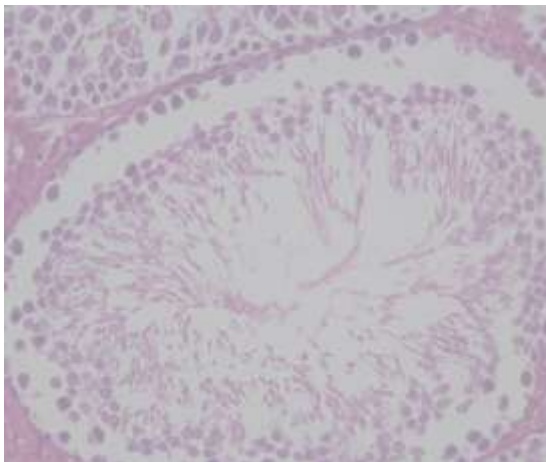
Gambar histopatologis testis kelompok perlakuan 2 yang diinjeksi 25 µg β estradiol 3-benzoat dengan perbesaran 100x. Terlihat beberapa tubulus seminiferus yang sama sekali tidak terdapat sel didalamnya.



Gambar histopatologis testis tikus kelompok perlakuan 3 dengan perbesaran 400x.



Gambar histopatologis testis tikus kelompok perlakuan 4 dengan perbesaran 400x.



Gambar histopatologis testis tikus kelompok perlakuan 5 dengan perbesaran 400x.



**Lampiran 5. Dokumentasi penelitian**



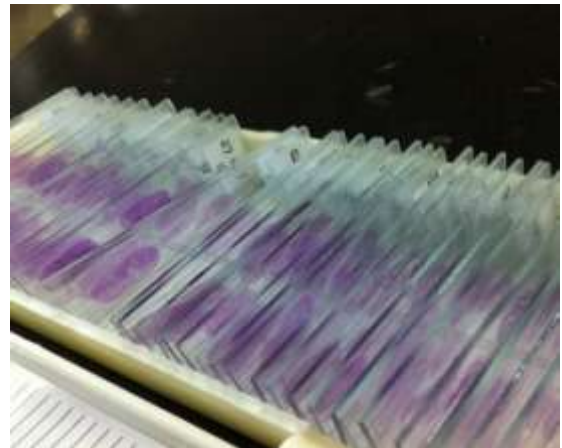
Tempat pelaksanaan penelitian



Laboratorium untuk hewan coba



Penelitian di Laboratorium FK Undip



Preparat tikus SD pada *object glass*

**Lampiran 6. Hasil perhitungan data dengan SPSS**

1. Reliability

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|------------------|------------|
| ,989             | 2          |

2. Karakteristik Sampel

**Descriptives**

|                                  | kelompok perlakuan               | Statistic   | Std. Error |
|----------------------------------|----------------------------------|-------------|------------|
| jumlah sel Sertoli               | Mean                             | 251,80      | 41,033     |
|                                  | 95% Confidence Interval for Mean | Lower Bound | 137,87     |
|                                  |                                  | Upper Bound | 365,73     |
|                                  | 5% Trimmed Mean                  | 247,39      |            |
|                                  | Median                           | 225,00      |            |
|                                  | Variance                         | 8418,700    |            |
|                                  | Std. Deviation                   | 91,753      |            |
|                                  | Minimum                          | 176         |            |
|                                  | Maximum                          | 407         |            |
|                                  | Range                            | 231         |            |
|                                  | Interquartile Range              | 145         |            |
|                                  | Skewness                         | 1,677       | ,913       |
|                                  | Kurtosis                         | 2,995       | 2,000      |
|                                  | Mean                             | 133,20      | 13,731     |
| 95% Confidence Interval for Mean | Lower Bound                      | 95,08       |            |
|                                  | Upper Bound                      | 171,32      |            |
| 5% Trimmed Mean                  | 133,22                           |             |            |
| Median                           | 137,00                           |             |            |
| Variance                         | 942,700                          |             |            |
| Std. Deviation                   | 30,703                           |             |            |
| Minimum                          | 98                               |             |            |
| Maximum                          | 168                              |             |            |

|  |   |                             |             |          |        |
|--|---|-----------------------------|-------------|----------|--------|
|  |   | Range                       |             | 70       |        |
|  |   | Interquartile Range         |             | 61       |        |
|  |   | Skewness                    |             | -,116    | ,913   |
|  |   | Kurtosis                    |             | -2,556   | 2,000  |
|  |   | Mean                        |             | 142,40   | 23,691 |
|  |   | 95% Confidence Interval for | Lower Bound | 76,62    |        |
|  |   | Mean                        | Upper Bound | 208,18   |        |
|  |   | 5% Trimmed Mean             |             | 140,33   |        |
|  |   | Median                      |             | 143,00   |        |
|  |   | Variance                    |             | 2806,300 |        |
|  | 3 | Std. Deviation              |             | 52,975   |        |
|  |   | Minimum                     |             | 94       |        |
|  |   | Maximum                     |             | 228      |        |
|  |   | Range                       |             | 134      |        |
|  |   | Interquartile Range         |             | 88       |        |
|  |   | Skewness                    |             | 1,269    | ,913   |
|  |   | Kurtosis                    |             | 1,775    | 2,000  |
|  |   | Mean                        |             | 185,00   | 6,648  |
|  |   | 95% Confidence Interval for | Lower Bound | 166,54   |        |
|  |   | Mean                        | Upper Bound | 203,46   |        |
|  |   | 5% Trimmed Mean             |             | 184,33   |        |
|  |   | Median                      |             | 177,00   |        |
|  |   | Variance                    |             | 221,000  |        |
|  | 4 | Std. Deviation              |             | 14,866   |        |
|  |   | Minimum                     |             | 174      |        |
|  |   | Maximum                     |             | 208      |        |
|  |   | Range                       |             | 34       |        |
|  |   | Interquartile Range         |             | 26       |        |
|  |   | Skewness                    |             | 1,184    | ,913   |
|  |   | Kurtosis                    |             | ,078     | 2,000  |
|  |   | Mean                        |             | 176,20   | 13,211 |
|  |   | 95% Confidence Interval for | Lower Bound | 139,52   |        |
|  | 5 | Mean                        | Upper Bound | 212,88   |        |
|  |   | 5% Trimmed Mean             |             | 176,50   |        |
|  |   | Median                      |             | 182,00   |        |

|                     |         |       |
|---------------------|---------|-------|
| Variance            | 872,700 |       |
| Std. Deviation      | 29,541  |       |
| Minimum             | 133     |       |
| Maximum             | 214     |       |
| Range               | 81      |       |
| Interquartile Range | 50      |       |
| Skewness            | -.429   | ,913  |
| Kurtosis            | 1,091   | 2,000 |

### 3. Tes Normalitas masing-masing kelompok

#### Tests of Normality

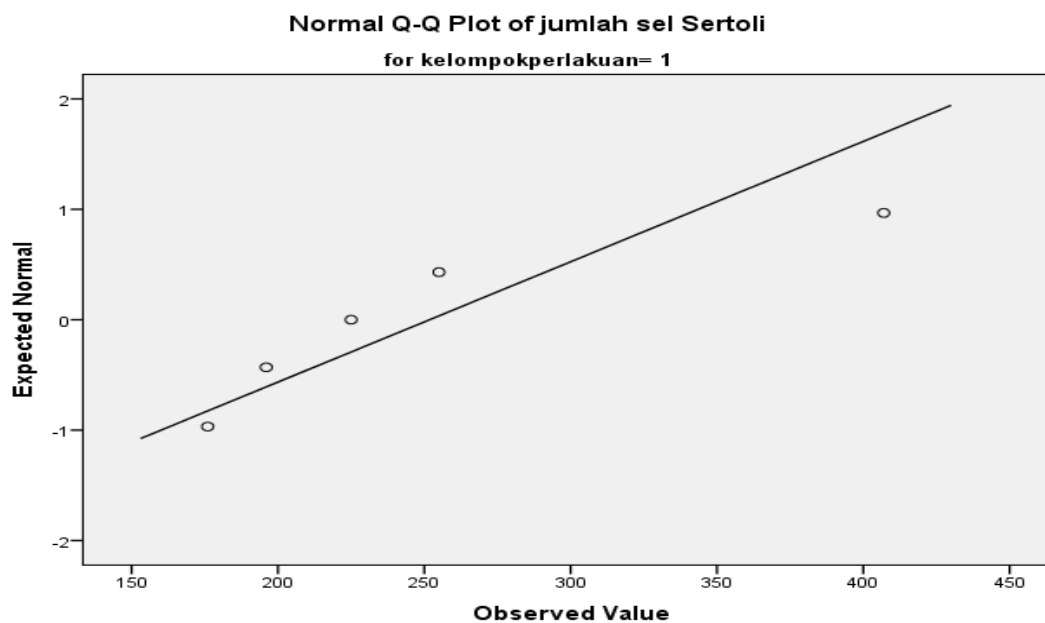
|         | kelompok perlakuan | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |      |
|---------|--------------------|---------------------------------|----|-------|--------------|----|------|
|         |                    | Statistic                       | df | Sig.  | Statistic    | df | Sig. |
|         | 1                  | ,286                            | 5  | ,200* | ,836         | 5  | ,154 |
| jumlah  | 2                  | ,212                            | 5  | ,200* | ,918         | 5  | ,517 |
| sel     | 3                  | ,288                            | 5  | ,200* | ,872         | 5  | ,276 |
| Sertoli | 4                  | ,305                            | 5  | ,145  | ,821         | 5  | ,119 |
|         | 5                  | ,183                            | 5  | ,200* | ,970         | 5  | ,873 |

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

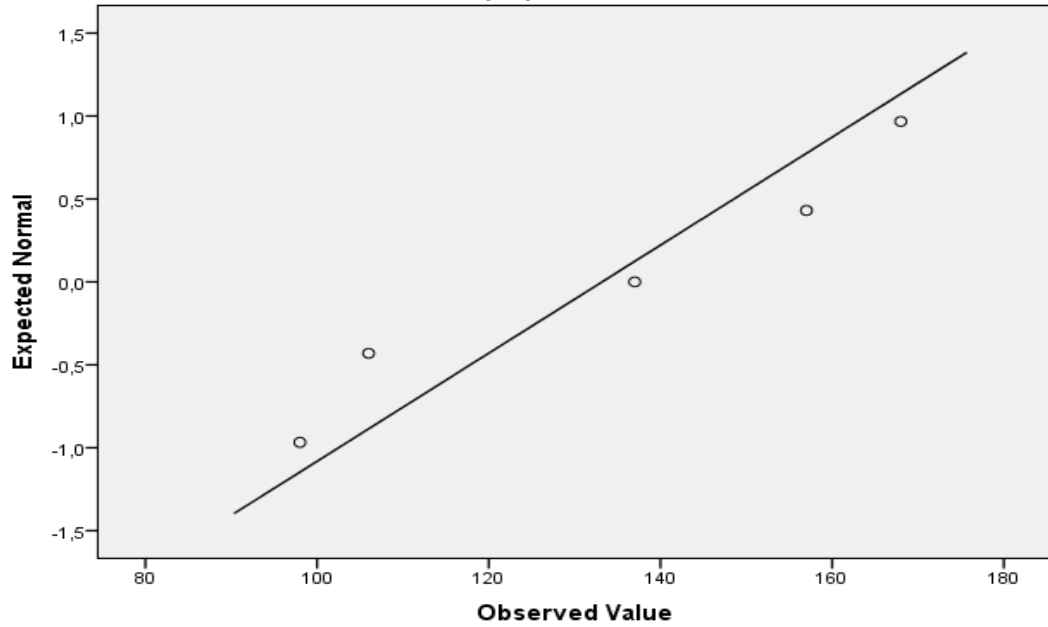
a. Lilliefors Significance Correction

### 4. Plots

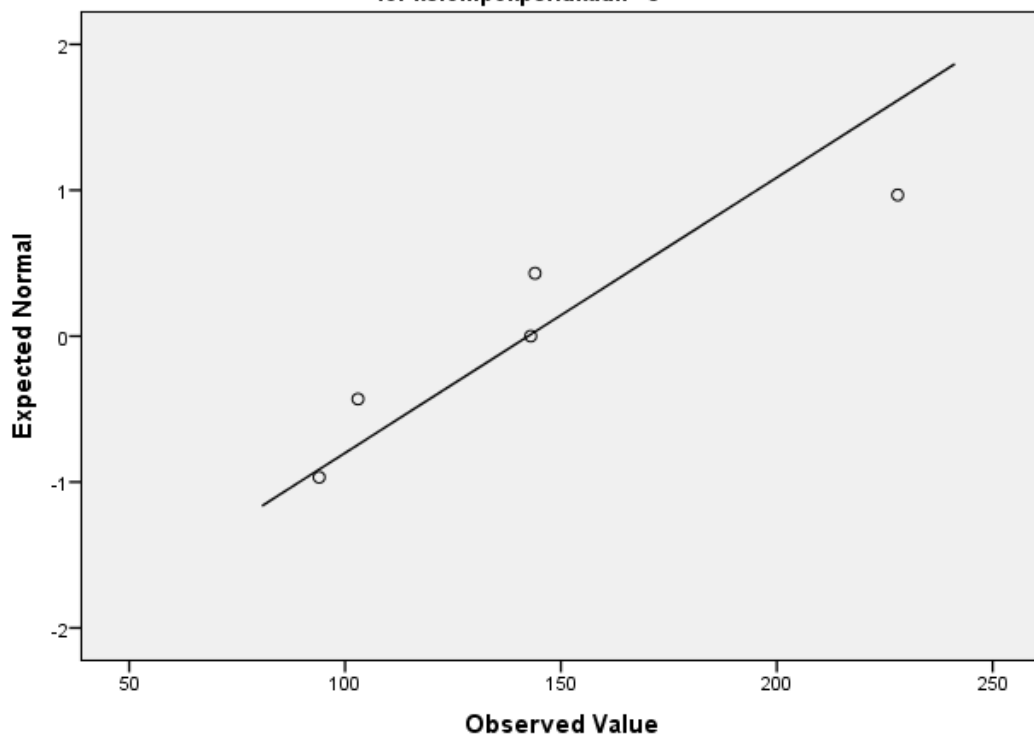
#### Normal Q-Q Plots



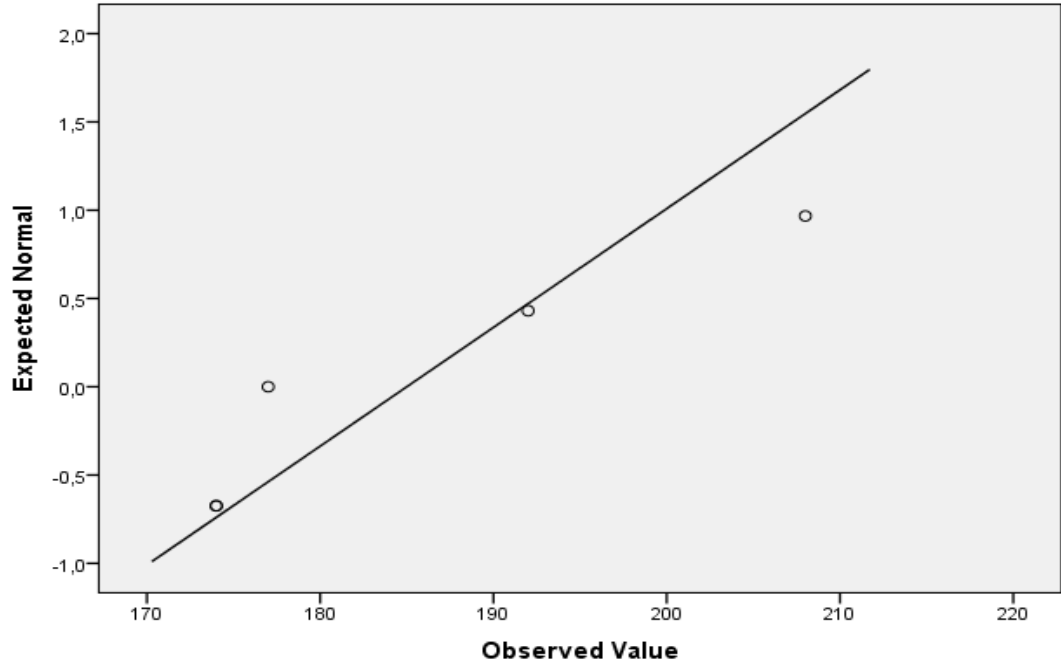
Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 2



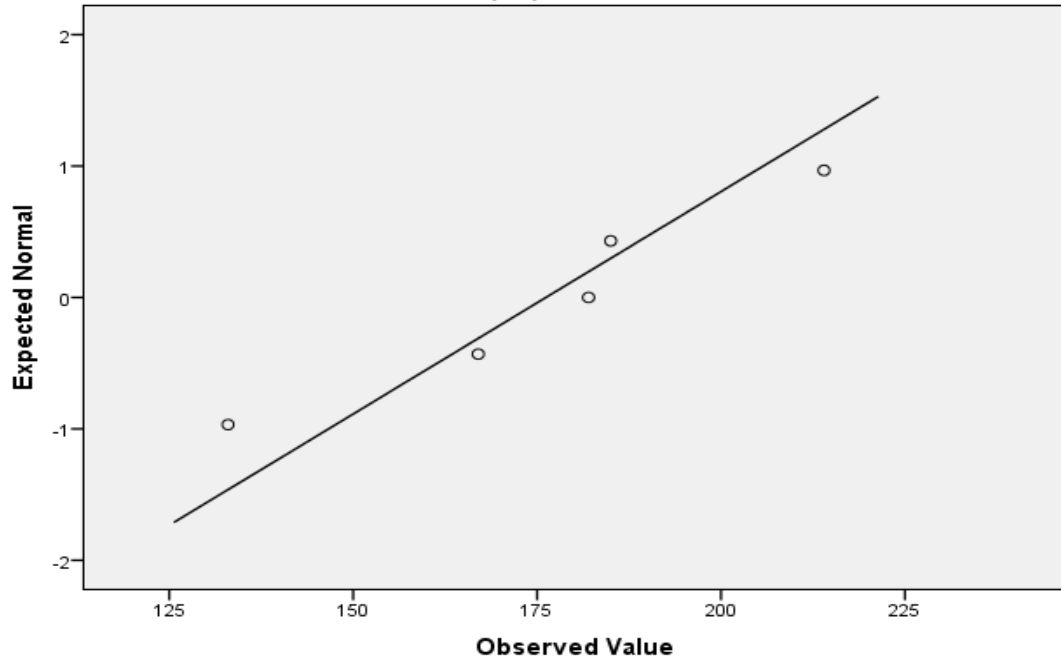
Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 3



Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 4

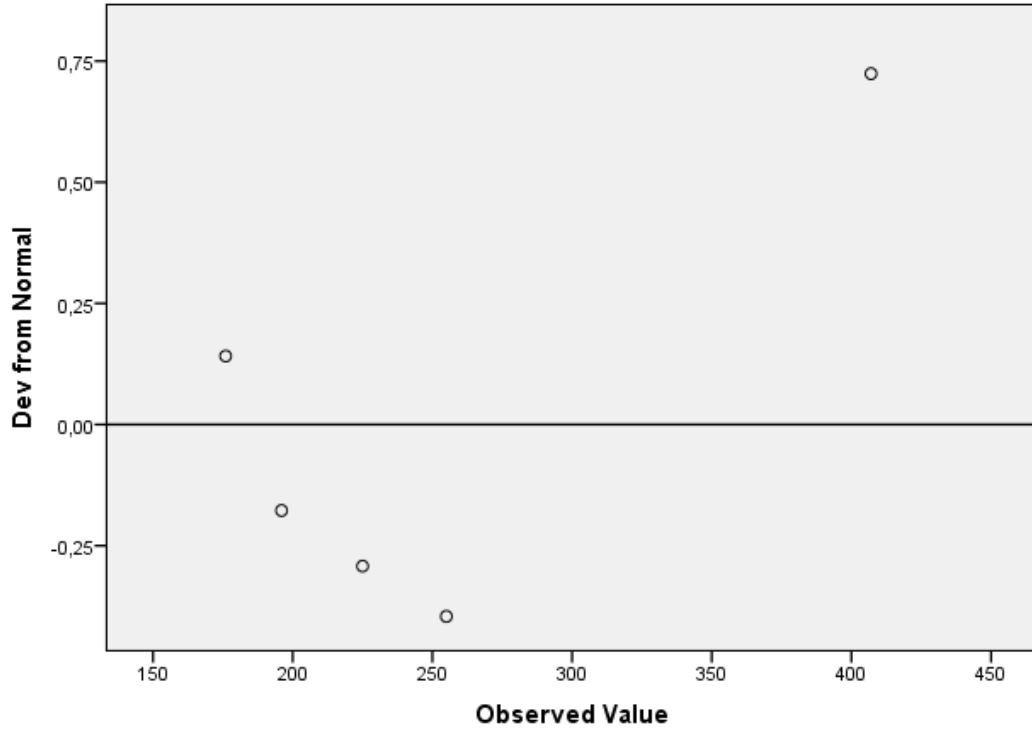


Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 5

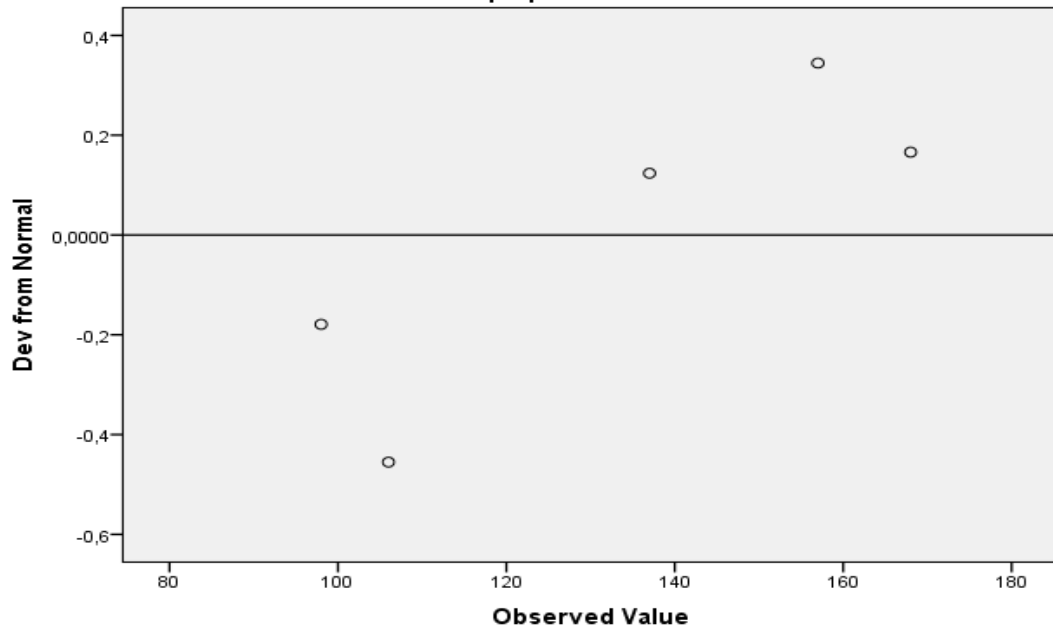


## Detrended Normal Q-Q Plots

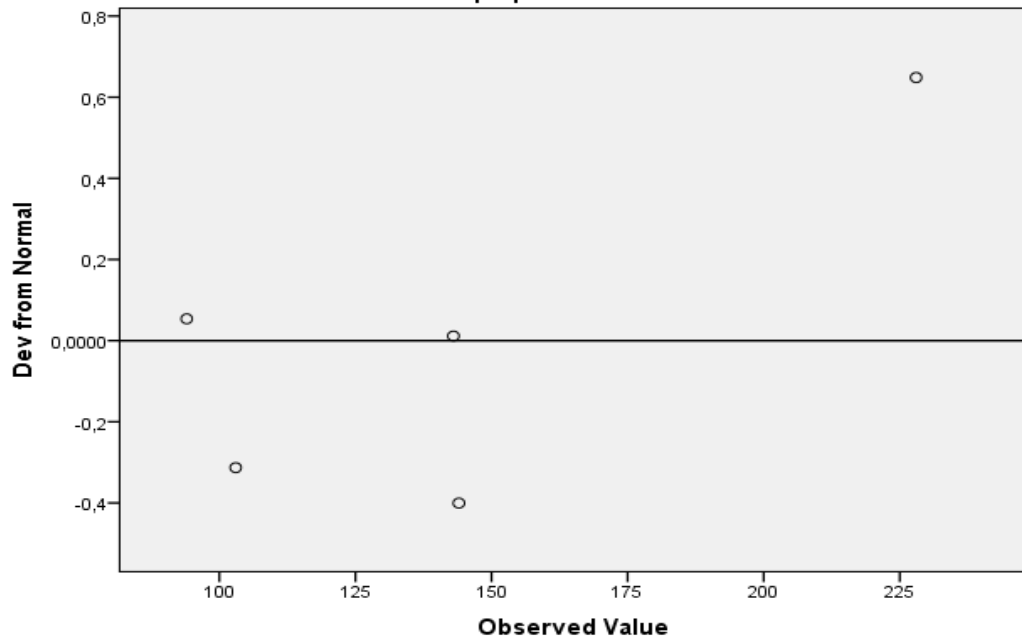
Detrended Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 1



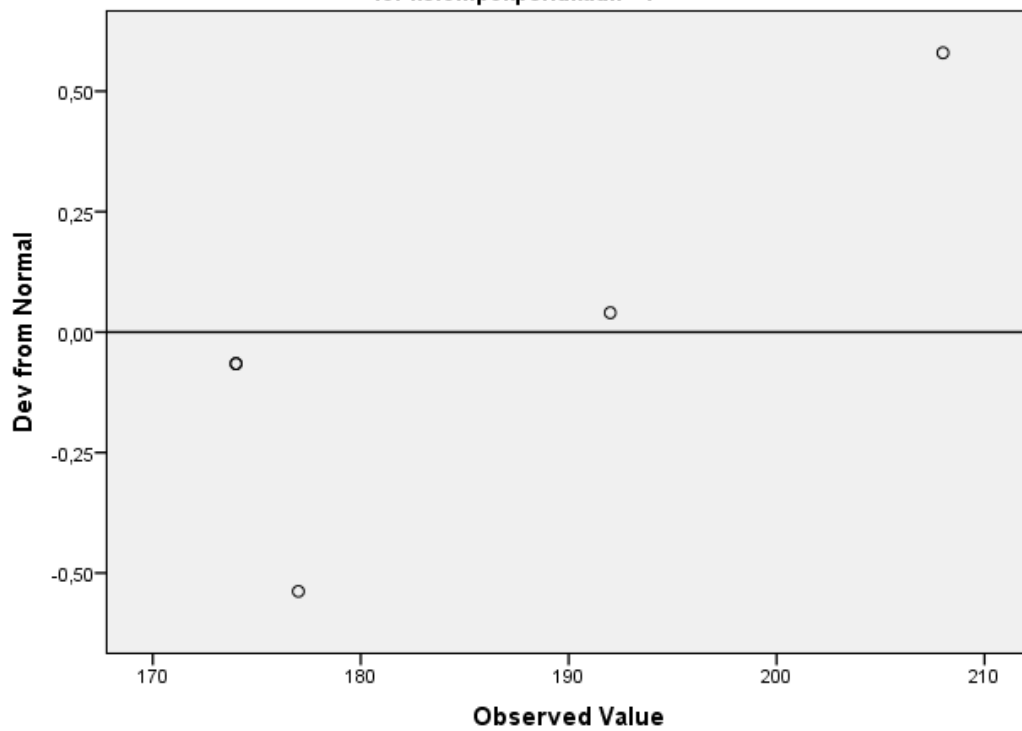
Detrended Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 2



**Detrended Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 3**

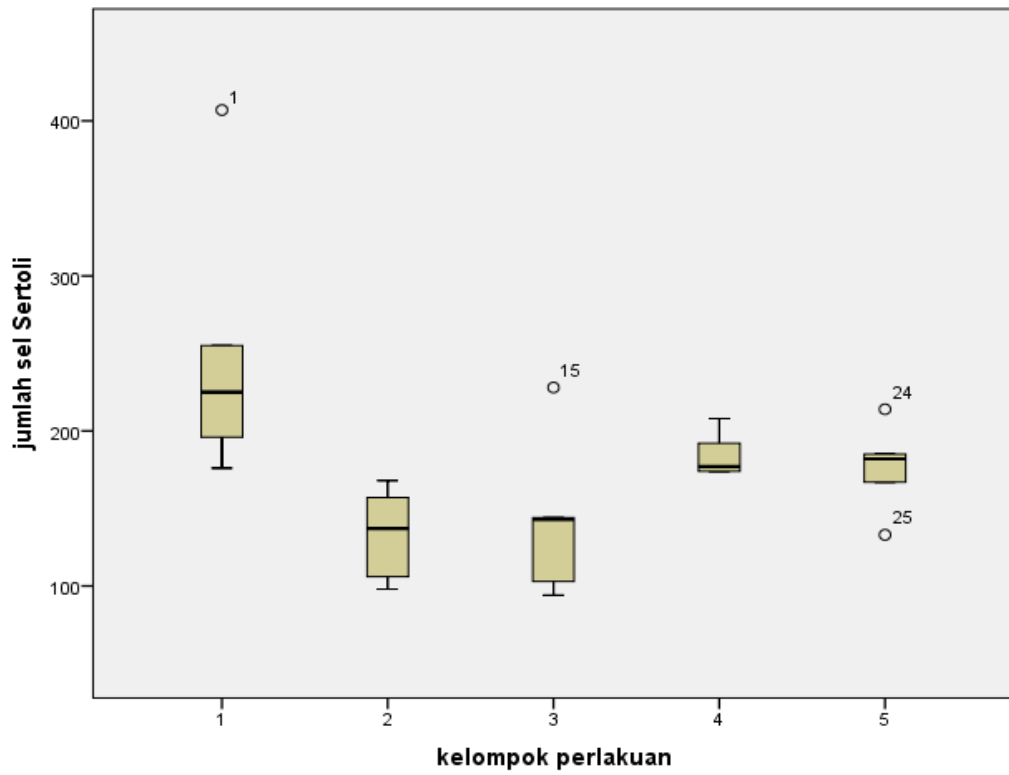
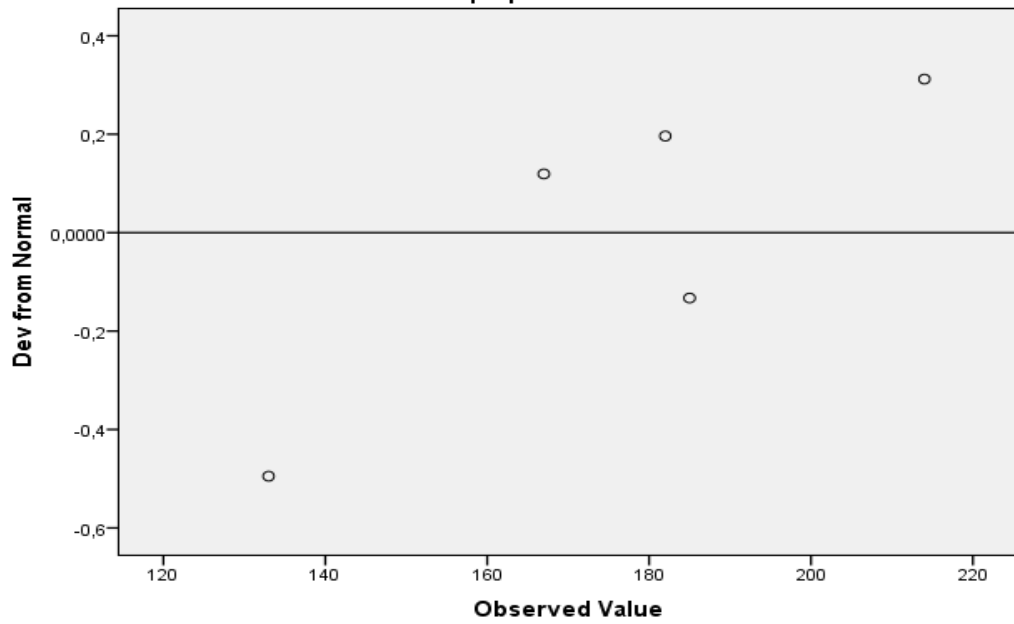


**Detrended Normal Q-Q Plot of jumlah sel Sertoli  
for kelompokperlakuan= 4**





Detrended Normal Q-Q Plot of jumlah sel Sertoli  
for kelompok perlakuan= 5



## 5. Uji Oneway ANNOVA

### Test of Homogeneity of Variances

jumlah sel Sertoli

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 1,880            | 4   | 20  | ,153 |

### ANOVA

jumlah sel Sertoli

|                | Sum of Squares | df | Mean Square | F     | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 43863,440      | 4  | 10965,860   | 4,135 | ,013 |
| Within Groups  | 53045,600      | 20 | 2652,280    |       |      |
| Total          | 96909,040      | 24 |             |       |      |

## 6. Uji Post Hoc

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: jumlah sel Sertoli

LSD

| (I) kelompok perlakuan | (J) kelompok perlakuan | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval |             |
|------------------------|------------------------|-----------------------|------------|------|-------------------------|-------------|
|                        |                        |                       |            |      | Lower Bound             | Upper Bound |
| 1                      | 2                      | 118,600*              | 32,572     | ,002 | 50,66                   | 186,54      |
|                        | 3                      | 109,400*              | 32,572     | ,003 | 41,46                   | 177,34      |
|                        | 4                      | 66,800                | 32,572     | ,054 | -1,14                   | 134,74      |
|                        | 5                      | 75,600*               | 32,572     | ,031 | 7,66                    | 143,54      |
| 2                      | 1                      | -118,600*             | 32,572     | ,002 | -186,54                 | -50,66      |
|                        | 3                      | -9,200                | 32,572     | ,780 | -77,14                  | 58,74       |
|                        | 4                      | -51,800               | 32,572     | ,127 | -119,74                 | 16,14       |
| 3                      | 5                      | -43,000               | 32,572     | ,202 | -110,94                 | 24,94       |
|                        | 1                      | -109,400*             | 32,572     | ,003 | -177,34                 | -41,46      |
|                        | 2                      | 9,200                 | 32,572     | ,780 | -58,74                  | 77,14       |
| 4                      | 4                      | -42,600               | 32,572     | ,206 | -110,54                 | 25,34       |
|                        | 5                      | -33,800               | 32,572     | ,312 | -101,74                 | 34,14       |
|                        | 1                      | -66,800               | 32,572     | ,054 | -134,74                 | 1,14        |
| 5                      | 2                      | 51,800                | 32,572     | ,127 | -16,14                  | 119,74      |
|                        | 3                      | 42,600                | 32,572     | ,206 | -25,34                  | 110,54      |
|                        | 5                      | 8,800                 | 32,572     | ,790 | -59,14                  | 76,74       |
| 5                      | 1                      | -75,600*              | 32,572     | ,031 | -143,54                 | -7,66       |
|                        | 2                      | 43,000                | 32,572     | ,202 | -24,94                  | 110,94      |
|                        | 3                      | 33,800                | 32,572     | ,312 | -34,14                  | 101,74      |
|                        | 4                      | -8,800                | 32,572     | ,790 | -76,74                  | 59,14       |

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