



## Lampiran 2. Hasil Analisis SPSS

## Analisis Tubulus Seminiferus

## Descriptives

KELOMPOK				Statistic	Std. Error
Tebal Epitel	Kelompok Kontrol	Mean		74.5764	.69439
		95% Confidence Interval for Mean	Lower Bound	73.2115	
			Upper Bound	75.9413	
		5% Trimmed Mean		74.2741	
		Median		73.9450	
		Variance		202.513	
		Std. Deviation		1.4230E1	
		Minimum		42.63	
		Maximum		128.87	
		Range		86.24	
		Interquartile Range		17.16	
		Skewness		.374	.119
		Kurtosis		.421	.238
			Kelompok Pewangi	Mean	
95% Confidence Interval for Mean	Lower Bound			65.5433	
	Upper Bound			68.6516	
5% Trimmed Mean				66.6365	
Median				65.0300	
Variance				262.563	
Std. Deviation				1.6203E1	
Minimum				31.77	
Maximum				126.16	
Range				94.39	
Interquartile Range				22.82	
Skewness				.449	.119
Kurtosis				.115	.238
	Kelompok Carbon			Mean	
		95% Confidence Interval for Mean	Lower Bound	71.3189	
			Upper Bound	74.2333	
		5% Trimmed Mean		72.6470	
		Median		71.7300	
		Variance		230.831	
		Std. Deviation		1.5193E1	
		Minimum		27.25	
		Maximum		112.13	
		Range		84.88	
		Interquartile Range		23.04	
		Skewness		.095	.119
		Kurtosis		-.455	.238
			Kelompok Pewangi dan Carbon	Mean	
95% Confidence Interval for Mean	Lower Bound			71.1207	
	Upper Bound			73.9544	
5% Trimmed Mean				72.0294	
Median				71.4400	
Variance				218.227	
Std. Deviation				1.4772E1	
Minimum				41.68	
Maximum				123.92	
Range				82.24	
Interquartile Range				22.01	
Skewness				.458	.119
Kurtosis				-.100	.238

### Tests of Normality

KELOMPOK		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Tebal Epitel	Kelompok Kontrol	.040	420	.118	.990	420	.004
	Kelompok Pewangi	.061	420	.001	.985	420	.000
	Kelompok Carbon	.034	420	.200 <sup>*</sup>	.993	420	.054
	Kelompok Pewangi dan Carbon	.069	420	.000	.981	420	.000

a. Lilliefors Significance Correction

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

### Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Tebal Epitel	Based on Mean	3.477	3	1676	.015
	Based on Median	3.044	3	1676	.028
	Based on Median and with adjusted df	3.044	3	1.644E3	.028
	Based on trimmed mean	3.340	3	1676	.019

### Kruskal-Wallis

#### Ranks

KELOMPOK		N	Mean Rank
Tebal Epitel	Kelompok Kontrol	420	933.35
	Kelompok Pewangi	420	693.18
	Kelompok Carbon	420	876.51
	Kelompok Pewangi dan Carbon	420	858.96
Total		1680	

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

	Tebal Epitel
Chi-Square	57.039
df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: KELOMPOK

## Mann-Whitney

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Tebal Epitel	Kelompok Kontrol	420	480.91	201981.00
	Kelompok Pewangi	420	360.09	151239.00
Total		840		

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

	Tebal Epitel
Mann-Whitney U	62829.000
Wilcoxon W	151239.000
Z	-7.216
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: KELOMPOK

## Mann-Whitney

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Tebal Epitel	Kelompok Kontrol	420	433.96	182263.00
	Kelompok Carbon	420	407.04	170957.00
Total		840		

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

	Tebal Epitel
Mann-Whitney U	82547.000
Wilcoxon W	170957.000
Z	-1.608
Asymp. Sig. (2-tailed)	.108

a. Grouping Variable: KELOMPOK

## Mann-Whitney

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Tebal Epitel	Kelompok Kontrol	420	439.48	184581.50
	Kelompok Pewangi dan Carbon	420	401.52	168638.50
Total		840		

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

	Tebal Epitel
Mann-Whitney U	80228.500
Wilcoxon W	168638.500
Z	-2.267
Asymp. Sig. (2-tailed)	.023

a. Grouping Variable: KELOMPOK

## Mann-Whitney

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Tebal Epitel	Kelompok Pewangi	420	375.61	157755.00
	Kelompok Carbon	420	465.39	195465.00
Total		840		

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

	Tebal Epitel
Mann-Whitney U	69345.000
Wilcoxon W	157755.000
Z	-5.363
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: KELOMPOK

## Mann-Whitney

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Tebal Epitel	Kelompok Pewangi	420	378.48	158962.50
	Kelompok Pewangi dan Carbon	420	462.52	194257.50
	Total	840		

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

	Tebal Epitel
Mann-Whitney U	70552.500
Wilcoxon W	158962.500
Z	-5.019
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: KELOMPOK

## Mann-Whitney

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Tebal Epitel	Kelompok Carbon	420	425.08	178533.50
	Kelompok Pewangi dan Carbon	420	415.92	174686.50
	Total	840		

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

	Tebal Epitel
Mann-Whitney U	86276.500
Wilcoxon W	174686.500
Z	-.547
Asymp. Sig. (2-tailed)	.584

a. Grouping Variable: KELOMPOK

## Analisis Jumlah Sel Leydig

## Descriptives

KELOMPOK				Statistic	Std. Error		
Jumlah Sel Leydig	Kelompok Kontrol	Mean		6.0667	.23915		
		95% Confidence Interval for Mean	Lower Bound	5.5924			
			Upper Bound	6.5409			
		5% Trimmed Mean		5.9021			
		Median		6.0000			
		Variance		6.005			
		Std. Deviation		2.45054			
		Minimum		2.00			
		Maximum		14.00			
		Range		12.00			
		Interquartile Range		2.50			
		Skewness		1.072	.236		
		Kurtosis		1.897	.467		
		Kelompok Pewangi	Kelompok Pewangi	Mean		4.4667	.15195
				95% Confidence Interval for Mean	Lower Bound	4.1653	
Upper Bound	4.7680						
5% Trimmed Mean				4.4312			
Median				4.0000			
Variance				2.424			
Std. Deviation				1.55704			
Minimum				2.00			
Maximum				8.00			
Range				6.00			
Interquartile Range				3.00			
Skewness				.383	.236		
Kurtosis				-.694	.467		
Kelompok Carbon	Kelompok Carbon			Mean		4.9048	.19589
				95% Confidence Interval for Mean	Lower Bound	4.5163	
		Upper Bound	5.2932				
		5% Trimmed Mean		4.7989			
		Median		5.0000			
		Variance		4.029			
		Std. Deviation		2.00731			
		Minimum		1.00			
		Maximum		12.00			
		Range		11.00			
		Interquartile Range		2.50			
		Skewness		.838	.236		
		Kurtosis		.842	.467		
		Kelompok Pewangi dan Carbon	Kelompok Pewangi dan Carbon	Mean		5.1524	.19081
				95% Confidence Interval for Mean	Lower Bound	4.7740	
Upper Bound	5.5308						
5% Trimmed Mean				5.0503			
Median				5.0000			
Variance				3.823			
Std. Deviation				1.95518			
Minimum				2.00			
Maximum				12.00			
Range				10.00			
Interquartile Range				2.00			
Skewness				.813	.236		
Kurtosis				.761	.467		

### Tests of Normality

KELOMPOK		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Jumlah Sel Leydig	Kelompok Kontrol	.149	105	.000	.918	105	.000
	Kelompok Pewangi	.170	105	.000	.933	105	.000
	Kelompok Carbon	.169	105	.000	.938	105	.000
	Kelompok Pewangi dan Carbon	.160	105	.000	.933	105	.000

a. Lilliefors Significance Correction

### Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Jumlah Sel Leydig	Based on Mean	2.823	3	416	.039
	Based on Median	2.928	3	416	.034
	Based on Median and with adjusted df	2.928	3	366.238	.034
	Based on trimmed mean	2.667	3	416	.047

## Kruskal-Wallis Test

### Ranks

KELOMPOK		N	Mean Rank
Jumlah Sel Leydig	Kelompok Kontrol	105	259.71
	Kelompok Pewangi	105	173.32
	Kelompok Carbon	105	196.46
	Kelompok Pewangi dan Carbon	105	212.50
Total		420	

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

	Jumlah Sel Leydig
Chi-Square	29.290
df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: KELOMPOK



## Mann-Whitney Test

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Jumlah Sel Leydig	Kelompok Kontrol	105	127.01	13336.00
	Kelompok Pewangi	105	83.99	8819.00
Total		210		

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

	Jumlah Sel Leydig
Mann-Whitney U	3254.000
Wilcoxon W	8819.000
Z	-5.192
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: KELOMPOK

## Mann-Whitney Test

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Jumlah Sel Leydig	Kelompok Kontrol	105	121.15	12720.50
	Kelompok Carbon	105	89.85	9434.50
Total		210		

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

	Jumlah Sel Leydig
Mann-Whitney U	3869.500
Wilcoxon W	9434.500
Z	-3.774
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: KELOMPOK

## Mann-Whitney Test

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Jumlah Sel Leydig	Kelompok Kontrol	105	117.56	12343.50
	Kelompok Pewangi dan Carbon	105	93.44	9811.50
	Total	210		

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

	Jumlah Sel Leydig
Mann-Whitney U	4246.500
Wilcoxon W	9811.500
Z	-2.908
Asymp. Sig. (2-tailed)	.004

a. Grouping Variable: KELOMPOK

## Mann-Whitney Test

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Jumlah Sel Leydig	Kelompok Pewangi	105	99.85	10484.50
	Kelompok Carbon	105	111.15	11670.50
	Total	210		

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

	Jumlah Sel Leydig
Mann-Whitney U	4919.500
Wilcoxon W	10484.500
Z	-1.369
Asymp. Sig. (2-tailed)	.171

a. Grouping Variable: KELOMPOK

## Mann-Whitney Test

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Jumlah Sel Leydig	Kelompok Pewangi	105	95.48	10025.00
	Kelompok Pewangi dan Carbon	105	115.52	12130.00
	Total	210		

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

	Jumlah Sel Leydig
Mann-Whitney U	4460.000
Wilcoxon W	10025.000
Z	-2.429
Asymp. Sig. (2-tailed)	.015

a. Grouping Variable: KELOMPOK

## Mann-Whitney Test

### Ranks

KELOMPOK		N	Mean Rank	Sum of Ranks
Jumlah Sel Leydig	Kelompok Carbon	105	101.46	10653.50
	Kelompok Pewangi dan Carbon	105	109.54	11501.50
	Total	210		

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

	Jumlah Sel Leydig
Mann-Whitney U	5088.500
Wilcoxon W	10653.500
Z	-.977
Asymp. Sig. (2-tailed)	.329

a. Grouping Variable: KELOMPOK

## Lampiran 3. Surat Izin Etika Penelitian



Fakultas Kedokteran dan Ilmu Kesehatan  
Universitas Muhammadiyah Yogyakarta

Nomor : 429/EP-FKIK-UMY/VII/2017

**KETERANGAN LOLOS UJI ETIK**  
**ETHICAL APPROVAL**

Komite Etik Penelitian Fakultas Kedokteran dan Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta dalam upaya melindungi hak asasi dan kesejahteraan responden/subyek penelitian, telah mengkaji dengan teliti protokol berjudul :

*The Ethics Committee of the Faculty of Medicine and Health Sciences, University of Muhammadiyah Yogyakarta, with regards of the protection of human rights and welfare in research, has carefully reviewed the research protocol entitled :*

**“Pengaruh Karbon Aktif Terhadap Ketebalan Epitel Tubulus Seminiferus dan Jumlah Sel Leydig”**

**Peneliti Utama** : Andi Yusrizal  
*Principal Investigator*

**Nama Institusi** : Program Studi Pendidikan Dokter FKIK UMY  
*Name of the Institution*

**Negara** : Indonesia  
*Country*

Dan telah menyetujui protokol tersebut diatas.  
*And approved the above-mentioned protocol.*

Yogyakarta, 22 Juli 2017



**Dr. dr. Titiek Hidayati, M. Kes**

**\*Peneliti Berkewajiban :**

1. Menjaga kerahasiaan identitas subyek penelitian
2. Memberitahukan status penelitian apabila :
  - a. Setelah masa berlakunya keterangan lolos uji etik, penelitian masih belum selesai, dalam hal ini *ethical clearance* harus diperpanjang
  - b. Penelitian berhenti di tengah jalan
3. Melaporkan kejadian serius yang tidak diinginkan (*serious adverse events*)
4. Peneliti tidak boleh melakukan tindakan apapun pada responden/subyek sebelum penelitian lolos uji etik dan *informed consent*

**Kampus:**

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*Muda mendunia*