**Statistic analysis**

**Blood Glucose after Streptozotoin induction**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Descriptives** | | | | | |  |
| Kelompok | | | | Statistic | Std. Error |  |
| GDP\_Pre | K- | Mean | | 214,2500 | 50,17698 |  |
| 95% Confidence Interval for Mean | Lower Bound | 54,5645 |  |  |
| Upper Bound | 373,9355 |  |  |
| 5% Trimmed Mean | | 213,1667 |  |  |
| Median | | 204,5000 |  |  |
| Variance | | 10070,917 |  |  |
| Std. Deviation | | 100,35396 |  |  |
| Minimum | | 128,00 |  |  |
| Maximum | | 320,00 |  |  |
| Range | | 192,00 |  |  |
| Interquartile Range | | 181,75 |  |  |
| Skewness | | 0,136 | 1,014 |  |
| Kurtosis | | -5,221 | 2,619 |  |
| K+ | Mean | | 215,2500 | 10,91158 |  |
| 95% Confidence Interval for Mean | Lower Bound | 180,5245 |  |  |
| Upper Bound | 249,9755 |  |  |
| 5% Trimmed Mean | | 215,3889 |  |  |
| Median | | 216,5000 |  |  |
| Variance | | 476,250 |  |  |
| Std. Deviation | | 21,82315 |  |  |
| Minimum | | 191,00 |  |  |
| Maximum | | 237,00 |  |  |
| Range | | 46,00 |  |  |
| Interquartile Range | | 41,25 |  |  |
| Skewness | | -0,167 | 1,014 |  |
| Kurtosis | | -4,102 | 2,619 |  |
| P1 | Mean | | 193,3333 | 14,71205 |  |
| 95% Confidence Interval for Mean | Lower Bound | 130,0325 |  |  |
| Upper Bound | 256,6342 |  |  |
| 5% Trimmed Mean | |  |  |  |
| Median | | 206,0000 |  |  |
| Variance | | 649,333 |  |  |
| Std. Deviation | | 25,48202 |  |  |
| Minimum | | 164,00 |  |  |
| Maximum | | 210,00 |  |  |
| Range | | 46,00 |  |  |
| Interquartile Range | |  |  |  |
| Skewness | | -1,684 | 1,225 |  |
| Kurtosis | |  |  |  |
| P2 | Mean | | 192,2500 | 6,86021 |  |
| 95% Confidence Interval for Mean | Lower Bound | 170,4177 |  |  |
| Upper Bound | 214,0823 |  |  |
| 5% Trimmed Mean | | 191,9444 |  |  |
| Median | | 189,5000 |  |  |
| Variance | | 188,250 |  |  |
| Std. Deviation | | 13,72042 |  |  |
| Minimum | | 180,00 |  |  |
| Maximum | | 210,00 |  |  |
| Range | | 30,00 |  |  |
| Interquartile Range | | 25,75 |  |  |
| Skewness | | 0,778 | 1,014 |  |
| Kurtosis | | -1,338 | 2,619 |  |

Normality of data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tests of Normality** | | | | | | | |
| 1. Lilliefors Significance Correction | | | | | | | | |
| **Tests of Normality** | | | | | | | | | |  |
| Kelompok | | Kolmogorov-Smirnova | | | Shapiro-Wilk | | | | |  |
| Statistic | df | Sig. | Statistic | df | Sig. | | |  |
| GDP\_Pre | K- | 0,302 | 4 |  | 0,817 | 4 | 0,135 | | |  |
| K+ | 0,250 | 4 |  | 0,912 | 4 | 0,495 | | |  |
| P1 | 0,357 | 3 |  | 0,815 | 3 | 0,150 | | |  |
| P2 | 0,250 | 4 |  | 0,919 | 4 | 0,531 | | |  |
| a. Lilliefors Significance Correction | | | | | | | | | |  |

Homogenity of data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | |  |
| GDP\_Pre | | | | | |  |
|  | Sum of Squares | df | Mean Square | F | Sig. |  |
| Between Groups | 1816,817 | 3 | 605,606 | 0,199 | 0,895 |  |
| Within Groups | 33504,917 | 11 | 3045,902 |  |  |  |
| Total | 35321,733 | 14 |  |  |  |  |

non parametric kruskal-walis test

|  |  |  |
| --- | --- | --- |
| **Test Statisticsa,b** | |  |
|  | GDP\_Pre |  |
| Kruskal-Wallis H | 1,030 |  |
| df | 3 |  |
| Asymp. Sig. | 0,794 |  |
| a. Kruskal Wallis Test | |  |
| b. Grouping Variable: Kelompok | |  |

**Blood glucose after treatment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Descriptives** | | | | | |  |
| Kelompok | | | | Statistic | Std. Error |  |
| GDP\_Post | K- | Mean | | 447,0000 | 92,01721 |  |
| 95% Confidence Interval for Mean | Lower Bound | 154,1602 |  |  |
| Upper Bound | 739,8398 |  |  |
| 5% Trimmed Mean | | 455,0556 |  |  |
| Median | | 519,5000 |  |  |
| Variance | | 33868,667 |  |  |
| Std. Deviation | | 184,03442 |  |  |
| Minimum | | 179,00 |  |  |
| Maximum | | 570,00 |  |  |
| Range | | 391,00 |  |  |
| Interquartile Range | | 316,00 |  |  |
| Skewness | | -1,682 | 1,014 |  |
| Kurtosis | | 2,721 | 2,619 |  |
| K+ | Mean | | 118,2500 | 6,14241 |  |
| 95% Confidence Interval for Mean | Lower Bound | 98,7021 |  |  |
| Upper Bound | 137,7979 |  |  |
| 5% Trimmed Mean | | 118,1667 |  |  |
| Median | | 117,5000 |  |  |
| Variance | | 150,917 |  |  |
| Std. Deviation | | 12,28481 |  |  |
| Minimum | | 104,00 |  |  |
| Maximum | | 134,00 |  |  |
| Range | | 30,00 |  |  |
| Interquartile Range | | 22,75 |  |  |
| Skewness | | 0,364 | 1,014 |  |
| Kurtosis | | 1,541 | 2,619 |  |
| P1 | Mean | | 156,3333 | 6,17342 |  |
| 95% Confidence Interval for Mean | Lower Bound | 129,7713 |  |  |
| Upper Bound | 182,8954 |  |  |
| 5% Trimmed Mean | |  |  |  |
| Median | | 154,0000 |  |  |
| Variance | | 114,333 |  |  |
| Std. Deviation | | 10,69268 |  |  |
| Minimum | | 147,00 |  |  |
| Maximum | | 168,00 |  |  |
| Range | | 21,00 |  |  |
| Interquartile Range | |  |  |  |
| Skewness | | 0,935 | 1,225 |  |
| Kurtosis | |  |  |  |
| P2 | Mean | | 141,2500 | 6,42099 |  |
| 95% Confidence Interval for Mean | Lower Bound | 120,8155 |  |  |
| Upper Bound | 161,6845 |  |  |
| 5% Trimmed Mean | | 140,7222 |  |  |
| Median | | 136,5000 |  |  |
| Variance | | 164,917 |  |  |
| Std. Deviation | | 12,84199 |  |  |
| Minimum | | 132,00 |  |  |
| Maximum | | 160,00 |  |  |
| Range | | 28,00 |  |  |
| Interquartile Range | | 22,25 |  |  |
| Skewness | | 1,702 | 1,014 |  |
| Kurtosis | | 2,887 | 2,619 |  |

Normality of data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tests of Normality** | | | | | | | |
|  | Kelompok | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|  | Statistic | df | Sig. | Statistic | df | Sig. |
| GDP\_Post | K- | ,308 | 4 | . | ,793 | 4 | ,090 |
| K+ | ,258 | 4 | . | ,954 | 4 | ,742 |
| P1 | ,253 | 3 | . | ,964 | 3 | ,637 |
| P2 | ,320 | 4 | . | ,815 | 4 | ,131 |
| a. Lilliefors Significance Correction | | | | | | | |

Homogenity of data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test of Homogeneity of Variances** | | | | | |  |
|  | | Levene Statistic | df1 | df2 | Sig. |  |
| GDP\_Post | Based on Mean | 5,624 | 3 | 11 | 0,014 |  |
| Based on Median | 2,099 | 3 | 11 | 0,159 |  |
| Based on Median and with adjusted df | 2,099 | 3 | 3,058 | 0,276 |  |
| Based on trimmed mean | 4,589 | 3 | 11 | 0,026 |  |

Robust test

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Robust Tests of Equality of Means** | | | | |  |
| GDP\_Post | | | | |  |
|  | Statistica | df1 | df2 | Sig. |  |
| Welch | 8,321 | 3 | 5,881 | 0,015 |  |
| Brown-Forsythe | 11,307 | 3 | 3,078 | 0,036 |  |
| a. Asymptotically F distributed. | | | | |  |

ANOVA test Blood glucose after treatment

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | |  |
| GDP\_Post | | | | | |  |
|  | Sum of Squares | df | Mean Square | F | Sig. |  |
| Between Groups | 284493,167 | 3 | 94831,056 | 10,149 | 0,002 |  |
| Within Groups | 102782,167 | 11 | 9343,833 |  |  |  |
| Total | 387275,333 | 14 |  |  |  |  |

post-hoc LSD test

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | |  |
| Dependent Variable: | | | | | | |  |
| LSD | | | | | | |  |
| (I) Kelompok | | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |  |
| Lower Bound | Upper Bound |  |
| K- | K+ | 328,75000\* | 68,35142 | 0,001 | 178,3095 | 479,1905 |  |
| P1 | 290,66667\* | 73,82797 | 0,002 | 128,1724 | 453,1609 |  |
| P2 | 305,75000\* | 68,35142 | 0,001 | 155,3095 | 456,1905 |  |
| K+ | K- | -328,75000\* | 68,35142 | 0,001 | -479,1905 | -178,3095 |  |
| P1 | -38,08333 | 73,82797 | 0,616 | -200,5776 | 124,4109 |  |
| P2 | -23,00000 | 68,35142 | 0,743 | -173,4405 | 127,4405 |  |
| P1 | K- | -290,66667\* | 73,82797 | 0,002 | -453,1609 | -128,1724 |  |
| K+ | 38,08333 | 73,82797 | 0,616 | -124,4109 | 200,5776 |  |
| P2 | 15,08333 | 73,82797 | 0,842 | -147,4109 | 177,5776 |  |
| P2 | K- | -305,75000\* | 68,35142 | 0,001 | -456,1905 | -155,3095 |  |
| K+ | 23,00000 | 68,35142 | 0,743 | -127,4405 | 173,4405 |  |
| P1 | -15,08333 | 73,82797 | 0,842 | -177,5776 | 147,4109 |  |
| \*. The mean difference is significant at the 0.05 level. | | | | | | |  |

**Artherosclerosis Statistical test**

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| **Case Processing Summary** | | | | | | | |
|  | VAR00001 | Cases | | | | | |
| Valid | | Missing | | Total | |
| N | Percent | N | Percent | N | Percent |
| VAR00005 | K- | 4 | 100,0% | 0 | 0,0% | 4 | 100,0% |
| K+ | 4 | 100,0% | 0 | 0,0% | 4 | 100,0% |
| P1 | 3 | 100,0% | 0 | 0,0% | 3 | 100,0% |
| P2 | 4 | 100,0% | 0 | 0,0% | 4 | 100,0% |

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| **Descriptives** | | | | | |
|  | VAR00001 | | | Statistic | Std. Error |
| VAR00005 | K- | Mean | | 4,2500 | ,47871 |
| 95% Confidence Interval for Mean | Lower Bound | 2,7265 |  |
| Upper Bound | 5,7735 |  |
| 5% Trimmed Mean | | 4,2778 |  |
| Median | | 4,5000 |  |
| Variance | | ,917 |  |
| Std. Deviation | | ,95743 |  |
| Minimum | | 3,00 |  |
| Maximum | | 5,00 |  |
| Range | | 2,00 |  |
| Interquartile Range | | 1,75 |  |
| Skewness | | -,855 | 1,014 |
| Kurtosis | | -1,289 | 2,619 |
| K+ | Mean | | 3,0000 | ,70711 |
| 95% Confidence Interval for Mean | Lower Bound | ,7497 |  |
| Upper Bound | 5,2503 |  |
| 5% Trimmed Mean | | 3,0556 |  |
| Median | | 3,5000 |  |
| Variance | | 2,000 |  |
| Std. Deviation | | 1,41421 |  |
| Minimum | | 1,00 |  |
| Maximum | | 4,00 |  |
| Range | | 3,00 |  |
| Interquartile Range | | 2,50 |  |
| Skewness | | -1,414 | 1,014 |
| Kurtosis | | 1,500 | 2,619 |
| P1 | Mean | | 3,0000 | ,57735 |
| 95% Confidence Interval for Mean | Lower Bound | ,5159 |  |
| Upper Bound | 5,4841 |  |
| 5% Trimmed Mean | | . |  |
| Median | | 3,0000 |  |
| Variance | | 1,000 |  |
| Std. Deviation | | 1,00000 |  |
| Minimum | | 2,00 |  |
| Maximum | | 4,00 |  |
| Range | | 2,00 |  |
| Interquartile Range | | . |  |
| Skewness | | ,000 | 1,225 |
| Kurtosis | | . | . |
| P2 | Mean | | 1,0000 | ,57735 |
| 95% Confidence Interval for Mean | Lower Bound | -,8374 |  |
| Upper Bound | 2,8374 |  |
| 5% Trimmed Mean | | 1,0000 |  |
| Median | | 1,0000 |  |
| Variance | | 1,333 |  |
| Std. Deviation | | 1,15470 |  |
| Minimum | | ,00 |  |
| Maximum | | 2,00 |  |
| Range | | 2,00 |  |
| Interquartile Range | | 2,00 |  |
| Skewness | | ,000 | 1,014 |
| Kurtosis | | -6,000 | 2,619 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tests of Normality** | | | | | | | |
|  | VAR00001 | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
| Statistic | df | Sig. | Statistic | df | Sig. |
| VAR00005 | K- | ,283 | 4 | . | ,863 | 4 | ,272 |
| K+ | ,260 | 4 | . | ,827 | 4 | ,161 |
| P1 | ,175 | 3 | . | 1,000 | 3 | 1,000 |
| P2 | ,307 | 4 | . | ,729 | 4 | ,024 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Ranks** | | | |
|  | VAR00001 | N | Mean Rank |
| VAR00005 | K- | 4 | 12,13 |
| K+ | 4 | 8,50 |
| P1 | 3 | 8,17 |
| P2 | 4 | 3,25 |
| Total | 15 |  |

|  |  |
| --- | --- |
| **Test Statisticsa,b** | |
|  | VAR00005 |
| Kruskal-Wallis H | 8,265 |
| df | 3 |
| Asymp. Sig. | ,041 |

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| --- |
| a. Kruskal Wallis Test |
| b. Grouping Variable: VAR00001 |

**Mann-Whitney Test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Ranks** | | | | | | |
|  | VAR00001 | N | | Mean Rank | | Sum of Ranks |
| VAR00005 | K- | 4 | | 5,63 | | 22,50 |
| K+ | 4 | | 3,38 | | 13,50 |
| Total | 8 | |  | |  |
| **Test Statisticsa** | | | | |
|  | | | VAR00005 | |
| Mann-Whitney U | | | 3,500 | |
| Wilcoxon W | | | 13,500 | |
| Z | | | -1,348 | |
| Asymp. Sig. (2-tailed) | | | ,178 | |
| Exact Sig. [2\*(1-tailed Sig.)] | | | ,200b | |

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| a. Grouping Variable: VAR00001 |
| b. Not corrected for ties. |

**Mann-Whitney Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ranks** | | | | |
|  | VAR00001 | N | Mean Rank | Sum of Ranks |
| VAR00005 | K- | 4 | 5,00 | 20,00 |
| P1 | 3 | 2,67 | 8,00 |
| Total | 7 |  |  |

|  |  |
| --- | --- |
| **Test Statisticsa** | |
|  | VAR00005 |
| Mann-Whitney U | 2,000 |
| Wilcoxon W | 8,000 |
| Z | -1,454 |
| Asymp. Sig. (2-tailed) | ,146 |
| Exact Sig. [2\*(1-tailed Sig.)] | ,229b |

|  |
| --- |
| a. Grouping Variable: VAR00001 |
| b. Not corrected for ties. |

**Mann-Whitney Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ranks** | | | | |
|  | VAR00001 | N | Mean Rank | Sum of Ranks |
| VAR00005 | K- | 4 | 6,50 | 26,00 |
| P2 | 4 | 2,50 | 10,00 |
| Total | 8 |  |  |

|  |  |
| --- | --- |
| **Test Statisticsa** | |
|  | VAR00005 |
| Mann-Whitney U | ,000 |
| Wilcoxon W | 10,000 |
| Z | -2,352 |
| Asymp. Sig. (2-tailed) | ,019 |
| Exact Sig. [2\*(1-tailed Sig.)] | ,029b |

|  |
| --- |
| a. Grouping Variable: VAR00001 |
| b. Not corrected for ties. |

**Mann-Whitney Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ranks** | | | | |
|  | VAR00001 | N | Mean Rank | Sum of Ranks |
| VAR00005 | K+ | 4 | 4,13 | 16,50 |
| P1 | 3 | 3,83 | 11,50 |
| Total | 7 |  |  |

|  |  |
| --- | --- |
| **Test Statisticsa** | |
|  | VAR00005 |
| Mann-Whitney U | 5,500 |
| Wilcoxon W | 11,500 |
| Z | -,185 |
| Asymp. Sig. (2-tailed) | ,853 |
| Exact Sig. [2\*(1-tailed Sig.)] | ,857b |

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| --- |
| a. Grouping Variable: VAR00001 |
| b. Not corrected for ties. |

**Mann-Whitney Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ranks** | | | | |
|  | VAR00001 | N | Mean Rank | Sum of Ranks |
| VAR00005 | K+ | 4 | 6,00 | 24,00 |
| P2 | 4 | 3,00 | 12,00 |
| Total | 8 |  |  |

|  |  |
| --- | --- |
| **Test Statisticsa** | |
|  | VAR00005 |
| Mann-Whitney U | 2,000 |
| Wilcoxon W | 12,000 |
| Z | -1,764 |
| Asymp. Sig. (2-tailed) | ,078 |
| Exact Sig. [2\*(1-tailed Sig.)] | ,114b |

|  |
| --- |
| a. Grouping Variable: VAR00001 |
| b. Not corrected for ties.  **Mann-Whitney Test**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Ranks** | | | | | |  | VAR00001 | N | Mean Rank | Sum of Ranks | | VAR00005 | P1 | 3 | 5,67 | 17,00 | | P2 | 4 | 2,75 | 11,00 | | Total | 7 |  |  |  |  |  | | --- | --- | | **Test Statisticsa** | | |  | VAR00005 | | Mann-Whitney U | 1,000 | | Wilcoxon W | 11,000 | | Z | -1,852 | | Asymp. Sig. (2-tailed) | ,064 | | Exact Sig. [2\*(1-tailed Sig.)] | ,114b |  |  | | --- | | a. Grouping Variable: VAR00001 | | b. Not corrected for ties. | |