**Phase 1**

**Table 1: Effect of Wellia 1 on Body Weight and Fasting Blood Glucose in Streptozotocin-Nicotinamide induced diabetes mellitus in rats:**

| **Parameter** | **Vehicle Control** | **Diabetic control** | **Standard Metformin 300 mg/Kg** | **Wellia 1 (998mg/kg) (Therapeutic)** | **Wellia 1 (998mg/kg) (Prophylactic)** |
| --- | --- | --- | --- | --- | --- |
| **Body Weight (g)** | | | | | |
| **DAY 0** | 196.3±5.08 | 161.5±7.54# | 165.7±6.93 | 162.7±4.87 | 159.2±7.32 |
| **DAY 7** | 192.7±5.51 | 155.8±7.54# | 165.2±6.46 | 160.3±4.94 | 157±7.76 |
| **DAY 14** | 201.8±5.12 | 157.3±6.96# | 171.5±6.07 | 163.2±4.73 | 162.9±6.77 |
| **FBGS (mg/dL)** | | | | | |
| **DAY 1** | 132.4±6.44 | 364.9±10.74# | 332.9±20.70 | 336.5±21.65 | 319.5±10.44 |
| **DAY 7** | 114.9±2.98 | 367.3±10.11# | 328.8±17.40 | 326.9±21.34\* | 314.9±10.30 |
| **DAY 14** | 128.1±2.36 | 370.6±9.42# | 297.2±12.07\*\* | 319.6±21.16\* | 308.4±10.11\* |

Values are expressed as mean ± SEM, n= 10. Two-way ANOVA followed by Bonferroni t-test.

#p<0.001 when compared to Vehicle control;

\*p<0.05, \*\*p<0.01, when compared to Diabetic control

Wellia 1 and Metformin were administered orally.

FBS – Fasting Blood Glucose

**Table 2: Effect of Wellia 1 on Liver Profile and Lipid Profile in Streptozotocin-Nicotinamide induced diabetes mellitus in rats:**

| **Parameter** | **Vehicle Control** | **Diabetic control** | **Standard Metformin 300 mg/Kg** | **Wellia 1 998 mg/Kg (Therapeutic)** | **Wellia 1 998 mg/Kg (Prophylactic)** |
| --- | --- | --- | --- | --- | --- |
| **AST (U/L)** | 5445±127.99 | 6237±78.84# | 7616±17.68\*\* | 7440±85.56\*\* | 1817±4.24\*\*\* |
| **ALT (U/L)** | 3001±7.78 | 6614.5±61.16### | 4201±57.98\*\* | 8224±214.25\*\* | 8524±104.30\*\* |
| **ALP (U/L)** | 13.5±0.35 | 23.5±0.35## | 49.5±1.06\*\*\* | 20±0.71 | 41±0.71\*\*\* |
| **TC**  **(mg/dL)** | 62±0.71 | 80±0.71### | 73±0.71\* | 66.5±0.35\*\*\* | 78.5±0.35 |
| **TG (mg/dL)** | 118.5±1.06 | 220.5±1.77### | 148±2.83\*\*\* | 75.5±1.77\*\*\* | 63.5±2.47\*\*\* |
| **HDL (mg/dL)** | 37.5±0.35 | 37±1.41 | 38.5±0.35 | 40.5±1.06 | 44±0.71 |
| **LDL (mg/dL)** | 2.5±0.07 | 33.75±1.03### | 5.25±0.04\*\*\* | 12.6±0.14\*\*\* | 23.5±0.35\*\* |
| **VLDL (mg/dL)** | 23.85±0.32 | 44.9±0.21### | 28.1±0.49\*\*\* | 15.75±0.11\*\*\* | 12±0.18\*\*\* |

Values are expressed as mean ± SEM, n= 2. One way ANOVA followed by Bonferroni t-test.

#p<0.05, ##p<0.01, ###p<0.001 when compared to Vehicle control;

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001 when compared to Diabetic control

Wellia 1 and Metformin were administered orally.

AST- Aspartate Aminotransferase; ALT- Alanine Aminotransferase; ALP - Alkaline Phosphatase; TC – Total Cholesterol, LDL – Low density lipoprotein; TG – Triglycerides; HDL – High density lipoprotein; VLDL- Very low-density lipoprotein



Values are expressed as mean ± SEM, n= 10. Two-way ANOVA followed by Bonferroni t-test.

#p<0.001 when compared to Vehicle control;

No significant change when compared to Diabetic control

Wellia 1 and Metformin were administered orally.



Values are expressed as mean ± SEM, n= 10. Two-way ANOVA followed by Bonferroni t-test.

#p<0.001 when compared to Vehicle control;

\*p<0.05, \*\*p<0.01 when compared to Diabetic control

Wellia 1 and Metformin were administered orally.



Values are expressed as mean ± SEM, n= 2. One way ANOVA followed by Bonferroni’s t-test.

#p<0.05 when compared to Vehicle control;

\*\*p<0.01, \*\*\*p<0.001 when compared to Diabetic control

Wellia 1 and Metformin were administered orally.



Values are expressed as mean ± SEM, n= 2. One-way ANOVA followed by Bonferroni’s t-test.

###p<0.001 when compared to Vehicle control;

\*\*p<0.01 when compared to Diabetic control

Wellia 1 and Metformin were administered orally



Values are expressed as mean ± SEM, n= 2. One-way ANOVA followed by Bonferroni’s t-test.

##p<0.01 when compared to Vehicle control;

\*\*\*p<0.001 when compared to Diabetic control

Wellia 1 and Metformin were administered orally



Values are expressed as mean ± SEM, n= 2. One-way ANOVA followed by Bonferroni’s t-test.

No significant change when compared to Vehicle control;

No significant change when compared to Diabetic control

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Wellia 1 and Metformin were administered orally