Table 1. Effect of EGCG on fluoride induced changes in the serum hepatic markers of control and experimental rats

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Control** | **EGCG** | **Fl** | **EGCG+Fl** |
| **SGOT (U/I)** | 48.06 ± 0.09a | 50.3 ± 0.45a | 67.02 ± 0.25c | 50.25±0.15d |
| **SGPT (U/I)** | 31.11 ± 0.72a | 33.43 ± 0.56ab | 43.51 ± 0.96c | 30.96±0.54cd |
| **ALP (U/I)** | 61.22 ± 0.57a | 63.1 ± 0.42ab | 82.31 ± 0.32c | 62.52±0.1d |
| **ACP (U/I)** | 40.3 ± 0.1a | 42.05 ± 0.65a | 71.43 ± 0.26c | 50.03±0.14cd |

Values are given as mean ± SD for six rats in each group. Values with different superscript letter

(a–d) in the same row or column differ significantly at p<0.05 (DMRT).

a values not differ significantly from control group at (P<0.05)

b values differ significantly from control group at (P<0.05)

c values differ significantly from EGCG group at (P<0.05)

d values differ significantly from Fluoride group at (P<0.05)

Table 2. Effect of EGCG on fluoride induced changes in the plasma glucose, liver glycogen, hexokinase and G6PD activities of control and experimental rats

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameters** | **Control** | **EGCG** | **Fl** | **EGCG + Fl** |
| Glucose (mg/dl)  Glycogen (mg/g)  Hexokinase (U/mg /protein/min)  G6PD (U/mg protein/min) | 93.44 ± 1.31a  16.97 ± 0.21a  8.32 ± 0.17a  0.17 ± 0.03a | 120.04 ± 1.60b  15.11 ± 0.18b  6.33 ± 0.20b  0.33 ± 0.02b | 188.72 ± 0.88c  10.09 ± 0.31c  3.70 ± 0.10c  0.48 ± 0.02c | 150.43 ± 1.23d  13.10 ± 0.27d  5.04 ± 0.16d  0.28 ± 12d |

Values are given as mean ± SD for six rats in each group. Values with different superscript letter

(a–d) in the same row or column differ significantly at p<0.05 (DMRT).

a values not differ significantly from control group at (P<0.05)

b values differ significantly from control group at (P<0.05)

c values differ significantly from EGCG group at (P<0.05)

d values differ significantly from Fluoride group at (P<0.05)

Table 3. Effect of EGCG on the level of plasma cholesterol, triglycerides, phospholipids, free fatty acids and lipoproteins concentrations in control and experimental rats.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameters** | **Control** | **EGCG** | **Fl** | **EGCG + Fl** |
| Cholesterol (mg/dl)  Triglycerides (mg/dl)  Phospholipids (mg/dl)  Free fatty acids (mg/dl)  VLDL-C (mg/dl)  LDL-C (mg/dl)  HDL-C (mg/dl) | 96.8 ± 4.01a  78.5 ± 2.9a  87.6 ± 2.8a  80.5 ± 2.3a  20.7 ± 0.5a  44.4 ± 1.5a  29.9 ± 1.0abc | 95.5 ± 3.7a  76.1 ± 2.7a  85.2 ± 2.7a  77.1 ± 2.1a  21.4 ± 0.7a  42.8 ± 1.3a  30.6 ± 1.2ac | 248.9 ± 9.4b  257.1 ± 8.9b  179.4 ± 5.5b  175.1 ± 4.7b  58.3 ± 2.0b  138.1 ± 5.3b  20.3 ± 5.1b | 121.2 ± 4.4c  101.6 ± 3.4c  134.2 ± 4.2c  80.8 ± 2.1ac  28.3 ± 0.9c  61.6 ± 2.3c  25.3 ± 1.3abc |

Values are given as mean ± SD for six rats in each group. Values with different superscript letter

(a–c) in the same row or column differ significantly at p<0.05 (DMRT).

a values not differ significantly from control and EGCG group at (P<0.05)

b values differ significantly from control and drug control group at (P<0.05)

c values differ significantly from Fl group at (P<0.05)

Table 4. Effect of EGCG on fluoride induced cholesterol, triglycerides, phospholipids, and free fatty acids in the liver of control and experimental rats.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameters** | **Control** | **EGCG** | **Fl** | **EGCG + Fl** |
| Cholesterol (mg/dl)  Triglycerides (mg/dl)  Phospholipids (mg/dl)  Freefatty acids (mg/dl) | 12.6 ± 1.1a  12.3 ± 1.4a  20.9 ± 2.4a  13.9 ± 1.5a | 11.6 ± 1.3a  11.2 ± 1.2a  21.7 ± 1.8a  13.5 ± 1.3a | 20.7 ± 1.3b  18.5 ± 2.4b  30.3 ± 3.5b  19.1 ± 1.4b | 15.4 ± 2.5c  13.4 ± 1.3c  24.6 ± 4.4c  16.4 ± 3.4c |

Values are given as mean ± SD for six rats in each group. Values with different superscript letter

(a–c) in the same row or column differ significantly at p<0.05 (DMRT).

a values not differ significantly from control and EGCG group at (P<0.05)

b values differ significantly from control and drug control group at (P<0.05)

c values differ significantly from Fl group at (P<0.05)