**Table 1.** Glycemic indices, liver enzymes and oxidative stress parameters of each group fed with different oils.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   **groups****variables** | **Control****(mean±SD)** | **fructose****(mean±SD)** | **Sunflower oil****+fructose****(mean±SD)** | **WP mixed oil****+fructose****(mean±SD)** | **WP hull oil****+fructose****(mean±SD)** | **WP kernel oil****+fructose** **(mean±SD)** | **p-value** |
| **FBS** | 114.45±28.42 | 178.00±17.32a | 174.72±38.38a | 120.45±14.09bc | 150.30±27.60a | 123.45±24.88bc | <.001 |
| **Insulin** | 1.90±0.24 | 1.59±0.17a | 1.47±0.18a | 1.78±0.18c | 1.63±0.22a | 1.85±0.18bc | <.001 |
| **HOMA-IR** | 0.53±0.13 | 0.7±0.12a | 0.64±0.19 | 0.53±0.10b | 0.60±0.13 | 0.56±0.11b | .04 |
| **OT\*\*** | 13(2-107) | 2.5(2-79.25) | 125(75-146) | 2(2-30) | 36(2.75-119.25) | 65(6-122) | .11 |
| **PT** | 71.18±14.98 | 63.70±9.38 | 64.27±13.40 | 67.54±12.17 | 59.20±18.65 | 60.36±14.50 | .38 |
| **MDA\*\*** | 3.92(3.58-5.25) | 4.27(3.75-5.78) | 3.83(3.7-4.92) | 3.92(3.87-4.85) | 4.00(3.76-4.20) | 4.08(3.50-4.37) | .86 |
| **SOD** | 30.30±1.49 | 31.82±1.04 | 32.24±2.81 | 32.45±1.19 | 32.29±1.62 | 31.65±2.44 | .11 |

\*p<0.05 considered significant.

- a significant difference compare to control group.

- b significant difference compare to fructose group.

- c significant difference compare to sunflower oil group.

- d significant difference compare to kernel oil group

\*\* nonparametric data express as median (IQR) (25th percentile and 75th percentile).

**Table 2.** Total score of histopathological findings based on central venous congestion, congestion and dilation of the hepatic sinusoids and inflammation of the portal tracts

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Control****(mean±SE)** | **fructose****(mean±SE)** | **Sunflower oil****(mean±SE)** | **Mixed oil****(mean±SE)** | **Hull oil****(mean±SE)** | **Kernel oil** **(mean±SE)** | **p-value** |
| Total score of histopathological findings\* | 0.09±0.09 | .0.8±0.44 | 1.00±0.26 | 0.45±0.15 | 0.3±0.15 | 0.18±0.12 | 0.06 |

\*Mean ± Standard error