**Table 1.** Characteristics of patients with type 2 diabetes mellitus.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Val-Met/ Met-Met  n=280 | Val-Val  n= 354 | P value |
| AGE, year | 53.69 6.71 | 54.366.30 | 0.09ª |
| Weight, kg | 77.44 14.42 | 74.82 13.25 | 0.10 ª |
| Height, cm | 162.199.57 | 160.11 8.89 | 0.12 ª |
| BMI, kg/ | 29.4 4.64 | 29.18 4.64 | 0.7 ª |
| Waist circumference, cm | 92.52 10.13 | 91.98 10.8 | 0.5 ª |
| Physical activity | 37.76 6.11 | 38.034.95 | 0.19 ª |
| Family history | 232 (82.9%) | 283 (79.9%) | 0.3ᵇ |
| Heart disease history | 104 (37.1%) | 138(39%) |  |
| Glucose-lowering medications, no. (%) |  |  |  |
| Without medications | 20 (7.1%) | 23 (6.5%) | 0.7ᵇ |
| Metformin | 20 (7.1%) | 104 (29.4%) |  |
| Glibenclamide | 14 (5%) | 21 (5.9%) |  |
| Metformin +glibenclamide | 132 (47.1%) | 181 (51.1%) |  |
| Lipid-lowering medications, no. (%) | 162(57.9%) | 193 (54.5%) |  |
| Without medications | 118 (42.1%) | 161 (45.5%) | 0.4ᵇ |
| Atorvastatin | 117 (48.9%) | 157 (44.4%) |  |
| Simvastatin | 3 (1.1%) | 3 (0.8) |  |
| Energy, kcal/d | 2333 589.6 | 2160 687.9 | 0.1 ª |
| Protein, g/d | 91.825.1 | 80.826.5 | 0.9 ª |
| Fat, g/d | 100.936.1 | 89.232.8 | 0.4 ª |
| Carbohydrate, g/day | 329.592.9 | 317119.7 | 0.1 ª |
| Saturated fatty acids, g/day | 27.78.96 | 23.358.31 | 0.1 ª |
| Cholesterol, g/d | 258.19118.98 | 170.0362.86 | 0.0 ª |
| Monounsaturated fatty acids, g/day | 35.0614.3 | 30.9513.27 | 0.4 ª |
| n-3 PUFA, g/day | 24.711.71 | 22.3511.17 | 0.4 ª |
| Fiber, g/d | 41 19.09 | 39.65 18.46 | 0.9 ª |

Data are Mean ± SD

Abbreviations: BMI body mass index

a Using the independent *t* test

b Using the Chi-squared test

P < 0.05 was considered significant.

**Table 2.** Comparison of clinical and laboratory parameters of participants according to BDNF Val66Met genotypes

|  |  |  |  |
| --- | --- | --- | --- |
|  | Val-Met/ Met-Met  n=280 | Val-Val  n= 354 | P value |
| CRP | 2.06 1.54 | 2.411.46 | 0.4 ª |
| PTX | 2.610.51 | 2.650.49 | 0.6 ª |
| IL-18 | 250.1929.6 | 246.5527.2 | 0.4 ª |
| TAC | 2.550.58 | 2.460.57 | 0.6 ª |
| SOD | 0.140.04 | 0.140.04 | 0.7 ª |
| PG2A | 71.235.74 | 73.486.67 | 0.2 ª |

Data are Mean ± SD

a Using the independent *t* test

Abbreviations: CRP: C-reactive protein, IL-18:Interleukin18, PGF2A: Prostaglandin F2-alpha, PTX: Pentrexin3, SOD: Superoxide dismutase, TAC: Total antioxidant capacity. P < 0.05 was considered significant.

**Table 3.** General and biochemical markers in Different Quartiles of Dietary Quality Indices

|  | DQI | | |  | HEI | | |  | PI | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| variable | Q1 | Q2 | Q3 | P\* | Q1 | Q2 | Q3 | P\* | Q1 | Q2 | Q3 | P\* |
| BMI | 29.74±5.13 | 29.30±4.30 | 28.39±4.24 | 0.027 | 30.02±4.72 | 28.97±4.72 | 28.77±4.23 | 0.01 | 29.87±5.27 | 29.23±4.4 | 28.57±4.08 | 0.03 |
| WC | 92.39±11.18 | 92.42±9.78 | 91.51±10.71 | 0.6 | 93.85±9.98 | 91.82±11.19 | 90.60±9.61 | 0.01 | 93.58±10.59 | 91.67±10.04 | 91.46±11.14 | 0.08 |
| CRP | 1.89±1.32 | 2.41±1.58 | 2.59±1.5 | 0.1 | 2.16±1.58 | 2.21±1.39 | 2.52±1.59 | 0.5 | 2.25±1.33 | 2.34±1.65 | 2.16±1.40 | 0.8 |
| PTX | 2.6±0.39 | 2.71±0.48 | 2.50±0.68 | 0.1 | 2.66±0.38 | 2.72±0.47 | 2.43±0.63 | 0.02 | 2.61±0.46 | 2.70±0.48 | 2.53±0.56 | 0.2 |
| IL-18 | 253.22±28.35 | 245.98±27.93 | 244.01±28.29 | 0.3 | 252.5±27.18 | 246.1±27.95 | 245.6±30.04 | 0.4 | 246.53±25.67 | 248.61±29.51 | 248.52±28.81 | 0.9 |
| TAC | 2.52±0.59 | 2.48±0.56 | 2.51±0.59 | 0.9 | 2.55±0.51 | 2.50±0.63 | 2.44±0.56 | 0.7 | 2.45±0.52 | 2.52±0.57 | 2.52±0.64 | 0.8 |
| PGF2A | 72.45±5.5 | 72.31±7.25 | 73.36±5.54 | 0.7 | 72.34±6.49 | 71.37±6.52 | 74.96±5.41 | 0.03 | 71.97±6.35 | 72.88±6.21 | 72.52±6.58 | 0.7 |
| SOD | 0.15±0.047 | 0.14±0.04 | 0.14±0.04 | 0.5 | 0.14±0.05 | 0.15±0.04 | 0.13±0.03 | 0.4 | 0.14±0.04 | 0.14±0.04 | 0.14±0.04 | 0.9 |

Data are Mean ± SD

P\* the one-way analysis of variance (ANOVA) was used to determine whether there are any statistically significant differences between the parameters and dietary indices among different quartiles.

Abbreviations: BMI: Body mass index, CRP: C-reactive protein, IL-18:Interleukin18, PGF2A: Prostaglandin F2-alpha, PTX: Pentrexin3, SOD: Superoxide dismutase, TAC: Total antioxidant capacity. P < 0.05 was considered significant.