|  |  |  |  |
| --- | --- | --- | --- |
| **HYPOTHYROID**  **(n=175)** | | **NORMAL**  **(n=175)** | |
| **Minimum age** | **Maximum age** | **Minimum age** | **Maximum age** |
| 15 | 65 | 15 | 65 |
| Mean ± SD 33.78±13.9 | | Mean ± SD 34.28±14.0 | |

**TABLE 1: AGE DISTRIBUTION OF HYPOTHYROID GROUP & NORMAL GROUP**

**p-value= 0.257 t value=1.135**

**TABLE2: FREQUENCY DISTRIBUTION AMONG MALE AND FEMALE IN HYPOTHYROID GROUP & NORMAL GROUP**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **HYPOTHYROID** | | | | **NORMAL** | | | |
| **Gender** | **Frequency** | **Percent** | **Valid Percent** | **Gender** | **Frequency** | **Percent** | **Valid Percent** |
| **Female** | 105 | 60.0 | 60.0 | **Female** | 109 | 62.2 | 62.2 |
| **Male** | 70 | 40.0 | 40.0 | **Male** | 66 | 37.8 | 37.8 |
| **Total** | 175 | 100.0 | 100.0 | **Total** | 175 | 100.0 | 100.0 |

**Chi square test\* p-value: 0.66 Chi-square:0.19**

**TABLE 3: LABORATORY FINDINGS OF HYPOTHYROID GROUP & NORMAL GROUP**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **HYPOTHYROID**  **Mean ±SD (n=175)** | **NORMAL**  **Mean ±SD (n=175)** | **p- VALUE** | **t- VALUE** |
| **AGE** | 33.78±13.9 | 34.28±14.0 | 0.737 | 0.3353 |
| **TSH** | 7.42±1.75 | 2.72±1.28 | 0.0001\* | 28.6765 |
| **TOTAL**  **T3** | 0.43±0.41 | 1.30±0.29 | 0.0001\* | 22.9174 |
| **TOTAL**  **T4** | 3.60±1.38 | 6.62±1.11 | 0.0001\* | 22.5581 |
| **VITAMIN B12** | 210.45±129.30 | 483.93±264.74 | 0.0001\* | 12.2792 |
| **FOLATE** | 2.51±0.99 | 6.67±0.83 | 0.0001\* | 42.5975 |
| **FERRITIN** | 23.08±1.18 | 63.43±3.30 | 0.0001\* | 152.3074 |

**Unpaired t-test, \* statistically significant**

**TABLE 4: PEARSON CORRELATION COEFFICIENT AMONG THE VITAMIN B12, FOLIC ACID AND FERRITIN WITH TSH IN HYPOTHYROID**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Correlations** | | | | | |
|  | | **TSH** | **VITAMIN B12** | **FOLATE** | **FERRITIN** |
| **TSH** | Pearson Correlation | 1 | .006 | .187\* | .035 |
| Sig. (2-tailed) |  | .935 | .013 | .641 |
| N | 175 | 175 | 175 | 175 |
| **VITAMINB12** | Pearson Correlation | .006 | 1 | .004 | -.010 |
| Sig. (2-tailed) | .935 |  | .955 | .897 |
| N | 175 | 175 | 175 | 175 |
| **FOLATE** | Pearson Correlation | .187\* | .004 | 1 | .115 |
| Sig. (2-tailed) | .013 | .955 |  | .129 |
| N | 175 | 175 | 175 | 175 |
| **FERRITIN** | Pearson Correlation | .035 | -.010 | .115 | 1 |
| Sig. (2-tailed) | .641 | .897 | .129 |  |
| N | 175 | 175 | 175 | 175 |
| **\*. Correlation is significant at the 0.05 level (2-tailed).** | | | | | |

**TABLE 5: PEARSON CORRELATION COEFFICIENT AMONG VITAMIN B12, FOLIC ACID & FERRITIN WITH TOTAL T3 IN HYPOTHYROID GROUP**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Correlations** | | | | | |
|  | | **TOTAL T3** | **VITAMIN**  **B12** | **FOLATE** | **FERRITIN** |
| **TOTAL T3** | Pearson Correlation | 1 | .124 | -.041 | .076 |
| Sig. (2-tailed) |  | .103 | .587 | .316 |
| N | 175 | 175 | 175 | 175 |
| **VITAMIN B12** | Pearson Correlation | .124 | 1 | .004 | -.010 |
| Sig. (2-tailed) | .103 |  | .955 | .897 |
| N | 175 | 175 | 175 | 175 |
| **FOLATE** | Pearson Correlation | -.041 | .004 | 1 | .115 |
| Sig. (2-tailed) | .587 | .955 |  | .129 |
| N | 175 | 175 | 175 | 175 |
| **FERRITIN** | Pearson Correlation | .076 | -.010 | .115 | 1 |
| Sig. (2-tailed) | .316 | .897 | .129 |  |
| N | 175 | 175 | 175 | 175 |

**Table 5:** There was no correlation found between total T3 and Vitamin B12 (r=0.124 p= 0.103). A negative correlation was observed between total T3 and folate but it was not significant (r=-0.041 p= 0.587). No association was found between total T3 and ferritin (r=0.076 p= 0.316).

**TABLE 6: PEARSON CORRELATION COEFFICIENT AMONG THE VITAMIN B12, FOLIC ACID AND FERRITIN WITH TOTAL T4 IN HYPOTHYROID GROUP**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Correlations** | | | | | |
|  | | **TOTAL**  **T4** | **VITAMIN**  **B12** | **FOLATE** | **FERRITIN** |
| **TOTAL**  **T4** | Pearson Correlation | 1 | -.038 | .062 | -.012 |
| Sig. (2-tailed) |  | .616 | .415 | .879 |
| N | 175 | 175 | 175 | 175 |
| **VITAMIN**  **B12** | Pearson Correlation | -.038 | 1 | .004 | -.010 |
| Sig. (2-tailed) | .616 |  | .955 | .897 |
| N | 175 | 175 | 175 | 175 |
| **FOLATE** | Pearson Correlation | .062 | .004 | 1 | .115 |
| Sig. (2-tailed) | .415 | .955 |  | .129 |
| N | 175 | 175 | 175 | 175 |
| **FERRITIN** | Pearson Correlation | -.012 | -.010 | .115 | 1 |
| Sig. (2-tailed) | .879 | .897 | .129 |  |
| N | 175 | 175 | 175 | 175 |

**Table 6:** Total T4 was observed negatively associated with Vitamin B12 (r=-0.038 p= 0.616) and ferritin (r=-0.012 p= 0.879) but both are not significant. There was no correlation found between Total T4 and folate (r=0.062 p= 0.415).