**Results – Tables and Graphs**

**Table 1: Distribution of males and females in three study groups**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Group I** | **%** | **Group II** | **%** | **Group III** | **%** | **Total** | **%** |
| Male | 31 | 77.50 | 30 | 75 | 27 | 67.50 | 88 | 73.33 |
| Female | 9 | 22.50 | 10 | 25 | 13 | 32.50 | 32 | 26.67 |
| Total | 40 | 100 | 40 | 100 | 40 | 100 | 120 | 100 |
| Chi-square=1.1028 P = 0.5751 | | | | | | | | |

**Table 2: Distribution of patients in three study groups by age groups**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age groups** | **Group I** | **%** | **Group II** | **%** | **Group III** | **%** | **Total** | **%** |
| 20-29yrs | 5 | 12.50 | 7 | 17.50 | 26 | 65 | 38 | 31.67 |
| 30-39yrs | 12 | 30 | 7 | 17.50 | 4 | 10 | 23 | 19.17 |
| 40-49yrs | 15 | 37.50 | 16 | 40 | 8 | 20 | 39 | 32.50 |
| 50+yrs | 8 | 20 | 10 | 25 | 2 | 5 | 20 | 16.67 |
| Total | 40 | 100 | 40 | 100 | 40 | 100 | 120 | 100 |
| Chi-square=33.5946 p=0.0001\* | | | | | | | | |
| Mean age | 43.43 | | 45.23 | | 32.13 | | 40.26 | |
| SD age | 13.49 | | 14.75 | | 10.93 | | 14.28 | |

\*p<0.05

6.6

2.8

6.5

2.7

0.00

1.00

2.00

3.00

4.00

5.00

6.00

7.00

8.00

Mean value

Group 1

Group 2

Mean

SD

**Figure 3: Comparison of Group I and Group II with respect to**

**frequency of tobacco consumption**

**Table 3: Summary of duration of quitting the habit in Group II (in years)**

|  |  |
| --- | --- |
| Summary | Value |
| Minimum | 0.40 |
| Maximum | 10.00 |
| Range | 9.60 |
| Mean | 2.48 |
| SD | 1.84 |
| SE | 0.21 |

**Table 4: Normality of NNN and NNK levels in three study groups by Kolmogorov Smirnov test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variables | Group I | | Group II | | Group III | |
| Z-value | P-value | Z-value | P-value | Z-value | P-value |
| NNN | 0.9660 | 0.3080 | 1.3620 | 0.0490\* | 2.3720 | 0.0001\* |
| NNK | 1.1500 | 0.1420 | 1.4110 | 0.0370\* | 2.4010 | 0.0001\* |

**Table 5: Pair wise comparisons of three study groups with NNN levels by Mann-Whitney U test**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Groups | Mean | Median | SD | Mean rank | U-value | Z-value | P-value |
| Group I | 651.84 | 589.39 | 359.78 | 58.80 |  |  |  |
| Group II | 119.52 | 95.05 | 87.67 | 22.20 | 68.00 | -7.0437 | 0.0001\* |
| Group I | 651.84 | 589.39 | 359.78 | 60.50 |  |  |  |
| Group III | 3.44 | 0.00 | 6.55 | 20.50 | 0.00 | -7.6980 | 0.0001\* |
| Group II | 119.52 | 95.05 | 87.67 | 60.50 |  |  |  |
| Group III | 3.44 | 0.00 | 6.55 | 20.50 | 0.00 | -7.6980 | 0.0001\* |

\*p<0.05

**Table 6: Pair wise comparisons of three study groups with NNK levels by Mann-Whitney U test**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Groups** | **Mean** | **Median** | **SD** | **Mean rank** | **U-value** | **Z-value** | **P-value** |
| Group I | 168.32 | 131.78 | 131.83 | 52.54 |  |  |  |
| Group II | 42.78 | 25.12 | 43.19 | 28.46 | 318.50 | -4.6332 | 0.0001\* |
| Group I | 168.32 | 131.78 | 131.83 | 60.50 |  |  |  |
| Group III | 1.98 | 0.00 | 3.68 | 20.50 | 0.00 | -7.6980 | 0.0001\* |
| Group II | 42.78 | 25.12 | 43.19 | 60.38 |  |  |  |
| Group III | 1.98 | 0.00 | 3.68 | 20.63 | 5.00 | -7.6499 | 0.0001\* |

\*p<0.05

**PHOTOGRAPHS**



**Pic. 1: Armamentarium used for clinical examination and collection of saliva sample**



**Pic. 2: Collection of Unstimulated saliva by saliva spit method**

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**Pic. 3: Reagents for sample preservation**

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**Pic. 4: Reagents used for estimation of nitrosamines by GCMS**

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**Pic.5: Precision scale for weighing samples**

**Pic.6: Cyclomixer for vortexing**



**Pic.7: Gas Chromatography with Mass Spectrometry (GC-MS) - Agilent**

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