**Original article**

**Effect of smoking on cardiovascular autonomic function test and nerve conduction velocity : Cross sectional study in Indian population**

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**Abstract:**

**Introduction:** In recent years, study of cardiac autonomic modulation as well as nerve conduction studies has been greatly facilitated by the development of various computer based methods. Present work was planned to study the correlation between smoking and cardiovascular autonomic functions and nerve conduction velocity among smokers.

**Material & Methods:** 100 male subjects in the age group 25 years to 40 years comprising of 50 smokers and 50 nonsmokers as control group were selected for present study. Cardiovascular autonomic function tests were assessed by using Canwin autonomic analyser. Median nerve conduction velocities were measured by using clarity Medicare’s octopus- 2 Channel EMG Machine.

**Observations & Results:** After applying ‘Z’ test of difference between two sample means , it was observed that there is a highly significant difference between mean values of autonomic function tests in the smokers and non-smokers group. It was also found that there is highly significant difference between mean values of sensory nerve conduction velocity in the smokers as compared to non-smokers group. However no significant difference was observed in the motor nerve conduction velocity in smokers as compared to nonsmokers.

**Conclusion:** From present study we present evidence that the relative involvement of large and small nerve fiber damage due to smoking is not uniform.

**Keywords:** autonomic function tests, nerve conduction velocity, smoking, smoking index