

Effect of acute and chronic nicotine consumption on reaction time

Nagalakshmi Vijaykumar* and Suresh Badiger

Department of Physiology, Sri Dharmasthala Manjunatheshwara Medical College, Sattur,
Dharwad-580009, Karnataka, India

Abstract: *Objective:* To record the effect of acute and chronic nicotine usage on visual and whole body reaction time which is the indicators of cognition. *Background:* Nicotine intake in the form of cigarette smoking does affect cognition. Even though the effect of nicotine on cognition is interesting, knowledge regarding this is inconsistent due to lack of much research. *Methods:* This study done on 50 male subjects (smokers) in the age group of 30-50 year, equal number of age and sex matched individuals were taken as controls. Cognition is evaluated by following parameters: (a) Simple and choice visual reaction time. (b) C1 of whole body reaction time. Student t test was used to compare the reaction time between smokers and non smokers. *Results:* The difference between simple and choice visual reaction time which is the indicator of cognition is significantly lower in smokers when compared to that of non smokers. ($p=0.02$) C1 of whole body reaction time is significantly lower in smokers when compared to that of non smokers ($p=0.04$). *Conclusion:* acute and chronic effect of nicotine consumption improves cognition and there by decreases reaction time.

Keywords: Intellectual activity, Nicotine, Response latency.