

Effect of tobacco chewing on aerobic capacity and cardiovascular functions among asymptomatic adults

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Abstract

Smokeless tobacco has been advocated as a substitute for cigarette smoking. In India, tobacco is used in several forms such as pan, dried leaves, paste, and tobacco with lime. The word Charotar stands for the area of golden leaves. It produces about 75,000-90,000 tone tobacco a year. Prevalence of smokeless tobacco use among adults in India in 2012 is 32.9% male and 18.4% female. Cardio respiratory endurance is a fundamental component of physical fitness. While maximal oxygen uptake is the gold standard for quantifying cardio respiratory endurance, the Three-Minute Step Test (TMST) is a relatively quick and easy test for measuring the cardio-pulmonary fitness and functional endurance. Objective of the study was to find out effects of tobacco chewing on aerobic capacity and cardiovascular function among asymptomatic adults. 100 participants had taken part in this cross sectional study and were divided in to 2 groups. Group 1 included non tobacco chewers and group 2 included tobacco chewers. At the beginning and at the end of the test HR, SBP and DBP were taken respectively for both groups. VO₂ max was calculated at the end of the test. Independent t-test of aerobic capacity and cardiovascular function was done at the end of TMST between two groups. We found significant difference in VO₂ max, HR, SBP and DBP between tobacco chewers and non tobacco chewers of 0.000 (p<0.05).TMST has been found to be effective in measuring functional endurance in tobacco chewers. Here by we conclude that tobacco chewing reduces aerobic capacity as well as on cardiovascular functions.

Biography

Hetshri Shah has completed her MPT in Cardio Pulmonary Diseases and Intensive Care Unit from Rajiv Gandhi University of Health Sciences, Bangalore. She is an Assistant Professor and In-charge of cardiopulmonary physiotherapy department at Ashok and Rita Patel Institute of Physiotherapy (ARIP), India.

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