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A Study of Lipid Profile in Tobacco Chewers and Smokers

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Abstract

Aim: To evaluate & compare the atherogenic ratio and to determine the extent of cardiovascular risk in tobacco chewers (T) & smokers (S). **Methods:** The present cross-sectional study was conducted at GMCH, Nagpur between November 2004 to June 2006. In all 100 subjects & 50 controls attending OPD of GMCH, Nagpur between age groups 20-60 years satisfying all the inclusion & exclusion criteria and willing to give consent were included in the study. Samples were withdrawn in fasting state & lipid profile was estimated using Accurex kits (Autozyme). Total cholesterol (TC) was estimated by CHOD-POD method, Triglycerides (TG) by GPO-PAP method, High density lipoprotein cholesterol (HDLc) by sodium phosphotungstate-Mg⁺⁺ method. Very low-density lipoprotein cholesterol & Low-density lipoprotein cholesterol by using formula; $VLDLc = TG/5$ & $LDLc = TC - HDLc - VLDLc$ respectively. **Results:** We observed significant increase in mean levels of TC, LDLc, LDLc/HDLc & TC/HDLc and significant decrease in mean HDLc in T & S as compared to controls. **Conclusions:** Tobacco chewing & smoking causes decrease in HDLc & increase in TC, LDLc, LDLc/HDLc & TC/HDLc indicating that they were independently associated with such an unfavorable lipid profile thereby greatly increasing the cardiovascular risk particularly for coronary artery disease. Cigarette smoking was found to be more atherogenic than tobacco chewing. However, bidi & cigarette smoking carry equal cardiovascular risk as far as alterations in lipid profile was concerned.