Associations between Serum Lipid Levels and Cardiovascular Risk in Men Exposed to Heat

http://www.ijhsr.org/IJHSR_Vol.2_Issue.6_Sep2012/6.pdf

Cited in:

International Journal of Health Sciences & Research Vol.2(6):47-51, 2012

Associations between Serum Lipid Levels and Cardiovascular Risk in Men Exposed to Heat

Jagdish C. Hundekari[1]@ , A.K. Bondade[2]
[1]Associate professor, [2]Professor and HOD Department of Physiology, MIMER Medical College, Talegaon, Pune, Maharashtra (India)
@Correspondence Email: jchundekari_31@yahoo.co.in
Received: 20/08//2012

Abstract

Objective:- To examine the association between exposure to stressful stimuli (heat) and cardiovascular risk in thermal power station workers with blood levels of serum cholesterol and triglycerides.

Material and methods :- Two Hundred male workers were selected out of whom 100 were workers exposed to heat emitted by boiler in boiler section for 8 hrs daily and 6 days in a week and the control group consists of office workers and staff who were not exposed to extreme heat. Depending on age, they were divided into four groups. (Group I (21-30yrs), Group II (31-40yrs), Group III (41-50yrs) and Group IV (41 onwards). Estimation of serum total cholesterol and triglyceride was carried out by enzymatic method between cases and controls to see whether exposure to heat (stress) is associated with increase in lipid profile.

Results :- It was observed that age adjusted average serum cholesterol and triglyceride level was highly significant ($P< 0.005$) in workers exposed to heat as compared to controls.

Conclusion :- Above results suggests that greater is the risk of hypertension and coronary heart disease (CHD) in these workers exposed to heat as compared to controls.

Key words:- Heat stress, Serum total Cholesterol, triglycerides

Reference

Bijlani RL, Gandhi BM, Tandon BN. Effect of examination stress on serum lipid profile. *Trop Gastroenterol* 1983;4(3):168-70.