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**A multicentric study to uncover the real load of metabolic syndrome
And its associated risk factors among army personnel**

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Objectives

Present study has a objective to determine prevalence of metabolic syndrome and to assess the associated risk factors as physical inactivity, smoking and alcohol use among service personnel.

Method

Multicentric, cross-sectional epidemiological study is carried out on a large sample of 1198 healthy army personnel aged 30 years and above, located at six different garrisons at various places in India. Data is recorded with the help of proforma which was which was pretested and standardized during the pilot study. It included details of personal particulars, details of physical activity, tobacco use, alcohol consumption, as well as details of physical examination, anthropometry, and results of biochemical investigations.

Results

Study indicated a prevalence of metabolic syndrome as 2.8% (95% CI 1.9 to 3.9%), using WHO modified definition. The prevalence worked out to be higher (6.2%, 95%, CI 4.9 to 7.7%) when ATP-III definition was used. Increasing age, especially > 45 years, lack of regular and adequate physical exercise, non-vegetarian diet, heavy use of alcohol and use of tobacco were identified as strong and statistically significant risk factors, while mild alcohol use seemed to be protective. The study also identified the overall prevalence of previously undetected raise blood pressure ($\geq 140/90$ mm Hg) as 7.5%, and that of previously undetected IGT (fasting BS ≥ 110 mg/dL) as 2.9%. The risk factors for raised BP and IGT were identified to be almost the same as those identified for metabolic syndrome. The study also identified that serum total cholesterol in isolation may not be a accurate predictor of low HDL or raised TG.

Recommendations

All personnel aged 45 years and above (preferably 35 years and above) should be targeted for providing regular and adequate physical exercise, as well as for targeting the preventive health assessment procedures. An extensive policy for prevention, control, management and research into "Lifestyle" diseases may be enunciated.