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Abstract

Background: Metabolic Syndrome (MS) is one of the major cause of morbidity and mortality across the globe. Therefore, this study was aimed to assess the prevalence of MS and its components using three international diagnostic criteria in the pre- and postmenopausal rural females of Amritsar (Punjab). *Methods:* This cross-sectional study was conducted among 300 rural females (186 premenopausal and 114 postmenopausal) of Amritsar (Punjab) during the period from June 2013 to June 2014. The age range of females was 25-55 years. WC and blood pressure of each participant was also measured. Fasting blood samples were analysed to estimate TC, TGL, HDL-C and FBG. LDL-C and VLDL-C were also calculated. The prevalence of MS was assessed using three international criteria ATP-III, IDF and mATP-III, respectively. For data analysis mean and standard deviation were calculated. Further Student's t-test, chi-square test and kappa statistic were also applied. *Results:* The postmenopausal women had significantly higher values of WC, SBP and DBP. In context to lipid profile variables, the values were again significantly higher among postmenopausal females except LDL-C. The prevalence of MS was 21.66 %, 24.33% and 25.66 % using ATP-III, IDF and mATP-III criterion, respectively. The postmenopausal females were observed to have significantly higher prevalence of MS. The degree of agreement (kappa statistic) was more (0.87) between mATP-III and IDF criteria as compared to between ATP-III and IDF (0.85) and between mATP-III and ATP-III (0.76) which shows that mATP-III has more concordance with IDF and less with ATP-III . Among 300 rural females, 18.3% (55) females were screened positive for MS by all the three criteria. The most prevalent component of MS was reduced levels of HDL-C whereas the least common was elevated levels of FBG. *Conclusion:* MS is quite prevalent in rural women of Amritsar using all the three criteria.

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