Prevalence of insulin resistance syndrome in a selected south Indian population--the Chennai urban population study-7 [CUPS-7].

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Abstract

BACKGROUND & OBJECTIVES: Although earlier studies had shown socio-economic factors to be strongly associated with the insulin resistance syndrome (IRS) and its components, there is still a paucity of data on Indians who have increased insulin resistance. In this study, we assessed the prevalence of IRS in two socio-economic groups in an urban south Indian population. METHODS: The Chennai Urban Population Study (CUPS) is an epidemiological study involving two residential areas in Chennai in south India. Of the 1262 eligible subjects (age > or = 20 yr) who participated in the study, 1070 (76.5%) subjects who had a complete set of data were recruited for this study. Insulin resistance was calculated using the homeostasis assessment (HOMA) model. Insulin resistance syndrome was defined as the presence of insulin resistance in combination with at least 2 of the following conditions: hyperglycaemia, hypertension, dyslipidemia or central body obesity.

RESULTS: The overall prevalence of IRS was 11.2 per cent (95% confidence interval: 9.4-13.3). The prevalence of the IRS in the middle-income group (18.7%) was significantly higher compared to the low income group (6.5%; P < 0.001). Multiple logistic regression analysis revealed age (P < 0.001), body mass index (P < 0.05) and socio-economic status (P = 0.014) to be associated with IRS.

INTERPRETATION & CONCLUSION: The overall prevalence rate of IRS was 11.2 per cent. Age and higher socio-economic status were the risk factors for insulin resistance in this selected urban south Indian study population.