

Anemia in relation to body mass index and waist circumference among Indian women

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This study aimed to investigate the relationship of anemia and body mass index among adult women in Guntur and Krishna districts, Andhra Pradesh, India. Data were collected in a sub-national cross-sectional survey, and 1,537 women aged 20-30 years were included in the analyses. Subjects were classified by body mass index (BMI) categories as underweight, normal weight, overweight and obese according to WHO standard. Central obesity was defined as a waist circumference ≥ 80 cm. Anemia was defined as hemoglobin concentration < 12 g/dl. Prevalence ratios (PRs) of the relationship between anemia and BMI or waist circumference were calculated using Poisson regression. Overall, 31.1% of the Andhra Pradesh women were anemic. The prevalence of overweight, obesity and central obesity was 34.2%, 5.8% and 36.2%, respectively. The obese group had the highest concentrations of hemoglobin compared with other BMI groups. After adjustment for confounders, overweight and obese women had a lower PR for anemia. Central obesity was inversely associated with anemia. In this population, women with overweight/obesity or central obesity were less likely to be anemic as compared to normal weight women. No measures are required currently to target anemia specifically for overweight and obese people in Andhra Pradesh, India.