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Metabolically Healthy Obesity and Development of Chronic Kidney Disease

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TO THE EDITOR: Chang and colleagues (1) report that over-weight and obesity are associated with an increased incidence of chronic kidney disease (CKD) in metabolically healthy young and middle-aged adults. As global obesity rates continue to climb (2), evaluating the substantial role that obesity plays in the development of such comorbidities as CKD is important. Obesity is a complex, multifactorial chronic disease, and the authors should consider several points before we are able to extrapolate their results and their potential effect on the greater population of persons with obesity.

Previous studies have shown that persons who are over-weight (body mass index [BMI], 25.0 to 29.9 kg/m²) or have class 1 (BMI, 30.0 to 34.9 kg/m²) or class 2 (BMI, 35.0 to 39.9 kg/m²) obesity have a lower risk for cardiovascular- and cancer-related deaths and deaths not related to these factors (3). The authors should consider the “obesity paradox” in patients with CKD. Although obesity is often associated with poor outcomes in many comorbid conditions, several studies show that it is related to improved survival in CKD (4). In addition, although previous studies have shown that the incidence of CKD increases in persons with obesity regardless of whether they have coexisting metabolic syndrome, whether CKD portends greater morbidity in this population is unclear (5).

The authors also suggest a linear relationship between BMI and CKD in their metabolically healthy cohort, but one must recognize that obesity is a heterogeneous chronic disease that clearly presents in many different phenotypes. Few clearly understood factors account for the differences in patients with obesity and the risk for CKD. In addition, although the authors did account for ethnicity by including Asian-specific cutoffs for BMI, the BMI of the homogeneous cohort ranged up to only 35.0 kg/m², which excludes persons with more severe forms of obesity. The higher BMI category in this study included those with a BMI greater than 25.0 kg/m², which primarily consisted of older men who may have had higher all-cause morbidity. We would have liked the authors to include data at higher BMI categories.

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