LETTER TO EDITOR

Obesity, Sarcopenia, and Sarcopenic Obesity: A Troublesome Trio in Type 2 Diabetes

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BACKGROUND

Obesity and diabetes are syndemics, which are increasing in prevalence across India. Obesity contributes to the pathogenesis of diabetes, modifies its clinical presentation and course, and influences its treatment choices and targets. Sarcopenia is another distinct clinical condition that is increasingly being recognized. The term 'sarcopenic obesity' refers to another syndemic, which has significant interplay with diabetes and its management. Though sarcopenia and sarcopenic obesity are conventionally thought to be limited to the geriatric age group, they may occur in younger persons as well.

REVIEW OF LITERATURE

Diabetes has become endemic to India. The South East Asia region is home to 90 million persons living with diabetes, the vast majority of whom have type 2 diabetes mellitus (T2DM). This number is projected to rise to 151.5 million by the year 2045. T2DM is a heterogeneous syndrome, marked by varied causative factors, clinical presentations, complications, comorbid conditions, and care pathways. It is imperative to explore and understand these nuances, as they impact the choice of treatment and monitoring interventions, as well as their outcomes.

Obesity, too, is an increasing epidemic in India. The prevalence of obesity and central obesity varies from 11.8% to 31.3% and 16.9% to 36.3%, respectively, across various states.

Diabesity, a portmanteau of diabetes and obesity, is a syndemic that has significant impact on public health. The prevalence of overweight and obesity in persons with diabetes has been reported to be 19.3% in "previously diagnosed" diabetes, 17.7% in "newly diagnosed" diabetes, and 64.6% in persons with impaired fasting glucose. The corresponding figures for central obesity are 9.2%, 7.8%, and 31.3%, respectively. This data suggests that obesity is associated with prediabetes as well as diabetes, and it may be fueling the prediabetes epidemic.

Sarcopenia, a syndrome of loss of muscle function, strength, and mass, is now being recognized as a distinct metabolic entity. Sarcopenia is associated and morbidity and mortality. When coexistent with obesity, the condition is termed as sarcopenic obesity. The prevalence of sarcopenia and obesity in India has been reported as 41.9% and 8.7%, respectively. Recent interest in this field has led to the development of clinical diagnostic criteria, which will increase the detection rate of sarcopenia.

The available data, from India and elsewhere, however, needs to be supplemented with more data. There is minimal data from North West India, and no reporting on the correlation of sarcopenia and sarcopenic obesity with T2DM. Simple anthropometric measures such as mid-calf circumference have not been explored for their utility in clinical screening, diagnosis, and risk stratification. Researchers have also not explored the potential impact of these comorbid conditions on choice of glucose-lowering therapy and nutritional supplementation. All these knowledge gaps need to be addressed by researchers and clinicians.

SUGGESTED READING

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Answer to the Picture Quiz from the Indian Journal of Clinical Practice, Vol. 35, No. 12, May 2025

Answer: (b) Xanthomas