

* Corresponding author at: Department of Cardiology, IGMC Shimla 171001, India.

Received 1 November 2017
Available online 7 November 2017

<http://dx.doi.org/10.1016/j.ihj.2017.11.002>

Obesity in adult asian indians- the ideal BMI cut-off

Sir,

We recently came across a very interesting review article published in the Indian Heart Journal- “Management of obesity in adult Asian Indians” by S. Behl, et al.¹ In an exhaustive review, authors have discussed the characteristics, diagnostic criteria and evaluation of obesity in Asian Indians. They have also elaborated the preventive and treatment strategies to combat this increasingly important health problem in India and worldwide.

Recent data show that in India, almost 13–50% of the urban population and 8–38% of the rural population suffers from obesity.¹ The rising prevalence of overweight and obesity in India has resulted in an increased prevalence of obesity-related comorbidities; hypertension, the metabolic syndrome, dyslipidemia, type 2 diabetes mellitus, cardiovascular disease, non-alcoholic fatty liver disease, obstructive sleep apnea, and certain cancers.² In view of the rising trend in prevalence of obesity and related metabolic diseases, and the financial burden they impose, effective interventions are needed for Asian Indians immediately. It has been repeatedly demonstrated that the Asian Indians manifest clustering of cardiovascular risk factors and T2DM at lower levels of body mass index (BMI) in comparison to the age-matched white Caucasians.^{1,2} The former characteristically have greater total, truncal, intra-abdominal, subcutaneous, and ectopic tissue fat at a given level of BMI than the latter.² Prompted by similar data from several studies, a World Health Organization (WHO) expert group in 2000, proposed BMI criterion for overweight as 23–24.9 kg/m² and that for obesity as ≥ 25 kg/m² for people residing in the Asia-Pacific region.³ However, WHO did not accept these criteria and continues to define overweight as BMI ≥ 25 kg/m² and obesity as BMI ≥ 30 kg/m² universally. Subsequently, this issue continued to be debated, so in 2004 the WHO decided not to take any firm actions on this issue and left to the governments of respective Asian countries to take a decision on the guidelines for BMI.⁴ WHO, however, added the cut-off points of 23 kg/m² and >27.5 kg/m² as the points for moderate-risk and high-risk public health action.⁴ Finally, In 2009, more than 100 Indian medical experts representing reputed medical institutions, hospitals, government-funded research institutions, and policy-making bodies participated to develop Asian Indian-specific guidelines for defining and managing overweight and obesity. The consensus guidelines defined overweight as those with BMI between 23.0–24.9 kg/m² and obesity as those having BMI ≥ 25.0 kg/m².⁵

Unfortunately, despite having clear cut Indian guidelines for defining overweight and obesity since 2009, the majority of contemporary studies and physicians in India are still using the international criteria for overweight and obesity. Majority still define obesity as BMI either ≥ 27.5 kg/m² (WHO 2004) or ≥ 30 kg/m² (WHO universal cut-off). This has serious health implications. This has led to many Indian individuals labelled as non-obese, despite being truly obese according to the consensus guidelines, thereby putting them at the risk of developing diseases

associated with obesity. These misperceptions could also impede weight-loss efforts because accurate self-perception of overweight and perceived personal health risk are necessary precursors to weight-loss attempts. It is believed that if preventive and therapeutic modalities are applied at lower levels of BMI and obesity, nearly 15% of the adult population of India (nearly 5–7 crore people) will benefit and diabetes mellitus and cardiovascular diseases could be prevented in them.⁵ So we strongly urge the researchers and physicians all across the country to adopt the Indian consensus guidelines and definitions for overweight and obesity.⁵ This would translate into an accurate measurement of the disease burden across the country and help in the formulation of context-specific preventive and treatment strategies to combat the rise of this rapidly growing non-communicable disease.

Conflicts of interest of each author/contributor

None.

Author's contribution

Criteria for inclusion in the authors' list=KM reviewed the literature and wrote the manuscript. AB gave conceptual advice. Final manuscript has been read and approved by both the authors, and each author states that the manuscript represents honest work.

Source of support in the form of grants, equipments, drugs

None.

Acknowledgement

None.

References

- Behl S, Misra A. Management of obesity in adult Asian Indians. *Indian Heart J.* 2017;69(July- August (4)):539–544. [10.1016/j.ihj.2017.04.015](http://dx.doi.org/10.1016/j.ihj.2017.04.015).
- Misra A. Ethnic-specific criteria for classification of body mass index: a perspective for asian indians and american diabetes association position statement. *Diabetes Technol Ther.* 2015;17(September (9)):667–671. [10.1089/dia.2015.0007](http://dx.doi.org/10.1089/dia.2015.0007).
- World Health Organization. *International Association of Study of Obesity, International Obesity Task Force: The Asia-Pacific Perspective. Redefining Obesity and Its Treatment.* www.wpro.who.int/nutrition/documents/Redefining_obesity/en/ (Accessed April 2015).
- WHO Expert Consultation. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. *Lancet.* 2004;363:157–163.
- Misra A, Chowbey P, Makkar BM, et al. Consensus statement for diagnosis of obesity, abdominal obesity and the metabolic syndrome for Asian Indians and recommendations for physical activity, medical and surgical management. *J Assoc Physicians India.* 2009;57:163–170.

Kunal Mahajan*

Aditya Batra

Department of Cardiology, Holy Heart Advanced Cardiac Care and Research Center, Rohtak, Haryana 124001, India

* Corresponding author.

E-mail address: kunalmahajan442@gmail.com (K. Mahajan).

Received 22 November 2017

Accepted 26 November 2017

Available online 27 November 2017

<http://dx.doi.org/10.1016/j.ihj.2017.11.020>