## Limit your waist size to half of your height

## Sir,

The article entitled "Anthropometric variables to coronary artery disease risk factors" by Patil, is interesting, though I would like to highlight a few limitations. The study has been done seven years before its publication and that might affect a few crucial findings of the study. The waist circumference (WC) and Body Mass Index (BMI) cutoffs used in the study are different from those currently advocated. The cutoffs suggested for waist to height ratio (WHtR) seem to be empiric as no reference has been cited for the same. It is worthwhile noting that by having lower cutoffs, the sensitivity of a parameter can be enhanced significantly.

Though with these limitations, the paper has strengthened the claim of Index of Central Obesity (ICO – Waist to height ratio) as a better parameter. ICO was proposed as early as 2007<sup>[1]</sup> by our own group as a better parameter of central obesity. During the conceptualization of ICO, WC cutoffs suggested for various races and both genders were compared with their average heights. The interesting finding was that the need for different gender and racespecific cutoffs can be largely attributable to the differences in their heights. Moreover, by virtue of taking height into consideration, ICO has the potential to come out as a useful tool for defining central obesity among children. ICO has been shown to strongly correlate with insulin resistance among children<sup>[2]</sup> as well as adults.<sup>[3]</sup>

ICO has been validated as a better alternative to WC in defining metabolic syndrome (MS) among the diabetic as well as non-diabetic population.<sup>[4]</sup> In addition to being applicable across races and genders it has been shown to be more sensitive and specific in identifying people with MS and people at high risk of cardiovascular disease. Several other researchers have endorsed ICO as a better predictor of cardiovascular risk,<sup>[5,6]</sup> obesity<sup>[7]</sup> and MS,<sup>[8]</sup> though there was a concern raised regarding the diverse terminologies being used.<sup>[9]</sup>

A paper proposing the use of ICO in the definition of MS has been recently accepted<sup>[10]</sup> and is in press. It would be of great academic interest to look at the cutoffs suggested for ICO in different studies, a few already published and others ongoing. In addition to the academic value ICO is very much useful in spreading a health awareness message among the community – "If your waist size is more than half of your height, please consult your doctor." For those at risk I would prefer a message – "Limit your waist size to half of your height."

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## REFERENCES

- Parikh RM, Joshi S R, Menon PS, Shah NS. Index of central obesity

   A novel parameter. Med Hypotheses 2007;68:1272-5.
- Manios Y, Kourlaba G, Kafatos A, Cook TL, Spyridaki A, Fragiadakis GA. Associations of several anthropometric indices with insulin resistance in children: The Children Study. Acta Paediatr 2008;97:494-9.
- Vasques AC, Rosado L, Rosado G, Ribeiro Rde C, Franceschini S, Geloneze B. Anthropometric indicators of insulin resistance. Arq Bras Cardiol 2010;95:e14-23.
- Parikh RM, Joshi SR, Pandia K. Index of central obesity is better than waist circumference in defining metabolic syndrome. Metab Syndr Relat Disord 2009;7:525-7.
- Schneider HJ, Friedrich N, Klotsche J, Pieper L, Nauck M, John U, et al. The predictive value of different measures of obesity for incident cardiovascular events and mortality. J Clin Endocrinol Metab 2010;95:1777-85.
- Chumlea WC, Jurca R, LaMonte MJ. Waist-to-height ratio as a predictor of cardiovascular disease risk. Med Sci Sports Exerc 2006;38:424.
- Ashwell M, Browning LM. The Increasing Importance of Waist-to-Height Ratio to Assess Cardiometabolic Risk: A Plea for Consistent Terminology. Open Obes J 2011;3:70-7.
- Kagawa M, Byrne NM, Hills AP. Comparison of body fat estimation using waist:height ratio using different 'waist' measurements in Australian adults. Br J Nutr 2008;100:1135-41.
- Shao J, Yu L, Shen X, Li D, Wang K. Waist-to-height ratio, an optimal predictor for obesity and metabolic syndrome in Chinese adults. J Nutr Health Aging 2010;14:782-5.

 Parikh RM, V Mohan, Joshi SR. Should Waist Circumference (WC) be replaced by Index of Central Obesity (ICO) in definition of metabolic syndrome?" Diabetes Metab Res Rev [In press].