Correspondence

Wiser to prevent childhood obesity

Sir,

We read with interest the article on prevalence of generalized and abdominal obesity in urban and rural India by Pradeepa et al[1]. Such an elaborate study is necessary for planning of health programmes for not only obesity but also for the non-communicable diseases. Multiple logistic regression analysis showed expected and already proven variables in obesity. It would have been more useful for the comprehensive programmatic management of obesity and related disorders if childhood obesity was also included. The prevalence of generalized obesity in the study was 24.6 and 16.6 per cent in Tamil Nadu and Maharashtra, respectively. It is now a well-known fact that those children who are obese in early age are likely to be obese in adulthood[2]. The prevalence of overweight/obesity in paediatric population in Chennai, Tamil Nadu in private schools was 26.4 per cent and in government schools was 4.6 per cent[3]. A recent study from four schools (2 government and 2 private) in Mumbai by our institution showed prevalence of overweight and obesity of 25.3 per cent[4]. The calorie mismatch is the cause of all obesity and one of the underlying factors is psychological behaviour for excessive or frequent eating in childhood. It is necessary to establish the importance of this behaviour and intercept it if possible to prevent obesity, as therapeutic interventions in adulthood have not been optimized. Also other causes of obesity, in adults like alcohol consumption and detailed dietary habits would have been studied.

We screened 100 overweight and obese students from one school for non alcoholic fatty liver disease (NAFLD) in Mumbai. The prevalence of NAFLD in this study was 62 per cent (unpublished data). In a study by Feldstein et al[5], when children with NAFLD were followed for 20 years, well into their adulthood, liver disease showed progression to cirrhosis. This fact reiterates the importance of childhood obesity. When body mass index (BMI) was studied longitudinally in children, it reached the lowest limit in the age group of 4 to 7 yr and increased progressively thereafter. This phenomenon has been referred to as BMI rebound. The early BMI rebound is associated not only with future glucose intolerance but also BMI at age of 7 or 8 yr is a predictor of adult obesity[6]. If such a behaviour is confirmed in the Indian subcontinent, then targeting this age group could have an impact on the prevalence of adult obesity.

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References

1. Pradeepa R, Anjana RM, Joshi SR, Bhansali A, Deepa M, Joshi PP, *et al*. ICMR-INDIAB Collaborative Study Group. Prevalence of generalized & abdominal obesity in urban & rural India- the ICMR - INDIAB Study (Phase-I) [ICMR-INDIAB-3]. *Indian J Med Res* 2015; *142* : 139-50.

2. Freedman DS, Kettel L, Serdula MK, Dietz WH, Srinivasan SR, Berenson GS. The relation of childhood BMI to adult adiposity: the Bogalusa Heart Study. *Pediatrics* 2005; *115* : 22-7.

3. Jagadesan S, Harish R, Miranda P, Unnikrishnan R, Anjana RM, Mohan V. Prevalence of overweight and obesity among school children and adolescents in Chennai. *Indian Pediatr* 2014; *51* : 544-9.

4. Pawar SV, Choksey AS, Jain SS, Surude RG, Rathi PM. Prevalence of overweight and obesity in 4 schools of south Mumbai. *J Clin Diagn Res* 2016; *10* : OC01-OC02.

5. Feldstein AE, Charatcharoenwitthaya P, Treeprasertsuk S, Benson JT, Enders FB, Angulo P. The natural history of non-alcoholic fatty liver disease in children: a follow-up study for up to 20 years. *Gut* 2009; *58* : 1538-44.

6. Bhargava SK, Sachdev AS, Fall CH, Osmond C, Lakshmy R, Barker DJ, *et al*. Relation of serial changes in childhood body-mass index to impaired glucose tolerance in young adulthood. *N Engl J Med* 2004; *350* : 865-75.