Onset of Obesity is Late in Affluent Bengali Boys

It is well recognised that obesity is increasing in many parts of India secondary to greater affluence(1,2). Although not reported from West Bengal, it is likely that obesity is escalating in Bengalis, in particular in those in affluent economic conditions. A recent report noted that Bengali adolescent boys and girls from middle income families were well below the national averages of affluent children in body mass index (BMI)(3). It remains to be established if Bengali children from more affluent backgrounds have a greater prevalence of obesity, and if so, whether this occurs relatively early in childhood.

It has been postulated that an earlier onset of excessive weight gain in childhood is associated with adverse morbidity in adulthood, chiefly in relation to developing insulin resistance(1). As childhood obesity is likely to have a significant impact on well being in later life, we should be vigilant for its prevalence and introduce preventive lifestyle measures, if necessary, at an early age(4).

To investigate for evidence of relatively early onset obesity in Bengalis, we selected randomly a group of healthy, prepubertal school boys (n = 129) of mean (standard deviation (SD)) age 6.2 (0.5) years from affluent Bengali families. Parental target height was calculated as [father's height + (mother's height + 13 cm)] / 2. Anthropometric characteristics, such as height, weight, BMI and parental target heights were converted to SD scores based on British 1990 normative data. Parent adjusted-height SD score was calculated as the difference of height SD and target height SD scores.

The mean (SD) BMI SD score of 0.4 (1.3) was comparable to western standards, and therefore considerably greater than that observed in pubertal children of middle income families(3). However. prepubertal affluent Bengali boys were relatively thin [mean (SD) weight SD score = 0.2 (1.4)] for their parent adjusted height [mean (SD) parent adjusted height SD score = 0.7 (1.0)]. The implication of a lower weight for parent adjusted height SD score ($P < 0.001$) is that there is currently insufficient evidence for the development of obesity in the prepubertal period in Bengali boys.

Our results are preliminary and it remains to be determined if children in our cohort grow up to be obese adults and whether our observations can be replicated in larger cohorts. Nevertheless. these observations are interesting and infer lifestyle influences occurring beyond the prepubertal period in the pathogenesis of adult obesity.

Indraneel Banerjee,
Dilip Mukherjee*,
Department of Pediatric Endocrinology, Royal Manchester Childrens Hospital, Pendelbury, Manchester, UK; and
**Vivekananda Institute of Medical Sciences, Ramakrishna Mission Seva Prathishthan, Kolkata, India.*
E-mail: i.banerjee@nhs.net, ibanerjee@freeuk.com

REFERENCES

1. Bhave S, Bavdekar A, Otiv M. IAP National Task Force for Childhood Prevention of Adult Diseases: Childhood Obesity. IAP National Task Force for Childhood Prevention of Adult Diseases: Childhood Obesity. Indian Pediatr 2004; 41: 559-575.
2. Bhatia V. IAP National Task Force for Childhood Prevention of Adult Diseases. IAP National Task Force for Childhood Prevention of Adult Diseases: insulin resistance and Type 2 diabetes mellitus in childhood. Indian Pediatr 2004; 41: 443-457.

3. Banerjee I, Ghia N, Bandopadhyay S, Sayed HN, Mukherjee D. Body mass index in Bengali adolescents. Indian Pediatr 2005; 42: 262-267.

4. Yagnik CS. Early life origins of insulin resistance and type 2 diabetes in India and other Asian countries. J Nutr 2004;134: 205-210.

Irrational Combination of Montelukast and Bambuterol for Management of Childhood Asthma

Recently, many of the leading pharmaceutical companies have started marketing a combination of montelukast and bambuterol for management of childhood asthma. Montelukast is a Cys-leukotriene receptor antagonist. It has been proven to have a role in management of mild persistent asthma(1). However, recent trials have found it be either inferior to inhaled low dose fluticasone or not-inferior (equivalent) to fluticasone(2). Based on the available data, the current consensus guidelines from various professional bodies(3), montelukast is listed as an alternative to low dose inhaled steroids. It is also recommended as an add-on to inhaled steroids in moderate persistent asthma even though there is data to suggest inferiority to combination of inhaled corticosteroids and inhaled long acting beta-agonists(4). The recently updated guidelines from the British Thoracic Society(5) clearly mention inhaled corticosteroids as the first choice preventer drug.

Bambuterol is a bis-dimethylcarbamate prodrug of terbutaline that releases terbutaline into blood over a sustained period. In this respect, it is different from long acting beta agonists like salmeterol or formoterol. The drug has been demonstrated to have benefit in nocturnal symptoms(6). However, the drug does not find mention in any of the standard treatment guidelines.

Since montelukast has been recommended as an alternative therapy in mild persistent asthma, we can presume the combination of montelukast and bambuterol is targeted for therapy of moderate persistent asthma.

Montelukast with long acting beta agonists are not recommended for use in asthma (BTS). There are no published studies evaluating the combination. With the above discussion it is clear that this combination will be inferior to inhaled corticosteroids and long acting beta agonists.

Even though the combination has an advantage of oral administration, should we accept this as therapy for moderate persistent asthma? It is desirable that the regulatory authorities carefully review the available evidence before permission is granted for marketing such irrational combination.

S.K. Kabra,
Rakesh Lodha,
Department of Pediatrics,
AIIMS, New Delhi, India.

REFERENCES

1. Knorr B, Franchi LM, Bisgaard H, Vermeulen JH, LeSouef P, Santanello N, *et al.* Montelukast, a leukotriene receptor antagonist, for the treatment of persistent asthma in children aged 2 to 5 years. Pediatrics 2001; 108: E48.