

Obstructive sleep apnoea and obesity

To the Editor—We read with interest the article by Ng et al¹ in the February 2004 issue of the *Hong Kong Medical Journal*. We concur with the authors' view that obstructive sleep apnoea (OSA) and obesity present a double challenge to all practising paediatricians and family doctors alike. To provide adequate resources to tackle the problem, the magnitude of the problem needs to be quantified in terms of OSA prevalence among local obese children, and it is inappropriate to use overseas data for this purpose.

We have recently published results of a case-control study that aimed to determine whether local obese children have an increased risk of OSA development.² Forty-six obese children with a weight of more than 120% of the ideal weight for height and a mean age of 10.8 years (standard deviation, 2.3 years) were compared with 44 sex- and age-matched controls of normal weight (ie ideal weight for height between 80% and 120%). All children underwent overnight polysomnography in a sleep laboratory, as well as a set of physical examinations, which included upper-airway assessment by an ear, nose, and throat surgeon who was blinded to participants' clinical characteristics. When we considered an obstructive apnoea index of more than 1 as diagnostic of OSA, 26.0% and 2.3% of the obese and normal-weight children, respectively, were found to have OSA. When we used a respiratory disturbance index of more than 5 as the cut-off value, the corresponding figures were 32.6% and 4.5%. We also found that OSA was related to the presence of tonsils (odds ratio [OR]=12.67; 95% confidence interval [CI], 2.14-75.17) and body mass index (OR=1.20; 95% CI, 1.08-1.33). Thus, any degree of enlargement of pharyngeal lymphoid tissue in obese children should be aggressively managed—a point not clearly brought across in the article by Ng et al.

Finally, Ng et al¹ stressed the importance of weight

reduction by means of dietary intervention and increased exercise activity. In our clinical experience, however, the majority of patients have difficulty achieving significant weight loss through such means. It is important that readers know that the nasal application of continuous positive-airway pressure is now established as the second-line treatment of choice.^{3,4} In many cases of OSA in obese children, this intervention can be life-saving, especially because the problem of sleep apnoea persists even after adenotonsillectomy.

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