CASE REPORT

Obstructive sleep apnoea

RICHARD H. BAKER, MB, MRCGP
General Practitioner, Cheltenham

Case history

DAVID C., a boy aged two years and ten months, was seen at morning surgery on 21 June 1984. He was desperately ill, lying almost comatose in his mother's arms. He was limp, cyanosed and exhausted, his respiratory attempts becoming increasingly feeble. It was obvious that he had an upper airway obstruction and preparations for intubation were made. However, David suddenly stirred, then awoke and took some breaths; within a minute he was smiling and no longer cyanosed. He enjoyed the ambulance ride to hospital immensely.

Overnight the respiratory obstruction returned and an emergency tonsillectomy was carried out. Sleep apnoea results in cor pulmonale, and David's heart had become very sensitive to hypoxia. In addition both premedication and induction of anaesthesia can precipitate upper airway obstruction. These problems made the use of anaesthetic hazardous and following surgery David had to be digitalized and ventilated. After five days, ventilation was discontinued and his subsequent recovery was rapid. There has been no recurrence of respiratory obstruction and his health and behaviour have improved dramatically. David's parents describe him as a 'different child'.

Discussion

Enlarged tonsils are one cause of chronic upper airway obstruction which leads to hypoventilation and consequently to cor pulmonale. This condition was first described in 1965[1] and is one variety of sleep apnoea syndrome which has been studied extensively in North America.[2] It has been suggested that the syndrome has a lower incidence in the UK,[3] although interest in sleep disorders is now increasing in this country.[4]

In the 22 months before David's acute presentation he was seen at the surgery 24 times with respiratory symptoms. Both disturbed sleep and enlarged tonsils had been noted on different occasions. He was attending a paediatric ear, nose and throat department and was receiving speech therapy. It was anticipated that he would require the insertion of grommets at some time in the future. In retrospect it can be seen that he had the typical symptoms of obstructive sleep apnoea syndrome. When he was asleep he breathed noisily and had episodes in which he would appear to hold his breath despite making inspiratory movements, then after about 20 seconds he would breathe again with a gulp. He would wet the bed and sometimes his lips turned blue. He always slept on all fours. During the day he was lethargic and sleepy.

Patients with obstructive sleep apnoea syndrome almost invariably snore, and cyclical apnoea despite vigorous efforts to respire is diagnostic. Sleepiness during the day and intellectual deterioration are recognized features of this syndrome.[5] Enlarged tonsils may be an important cause of sleep apnoea syndrome, but in adults the largest group of patients appear to have passive collapse of the pharyngeal walls promoted by obesity or other conditions. In severe cases, a tracheostomy may have to be performed as a long-term solution, despite the dangers of general anaesthesia.[6]

© *Journal of the Royal College of General Practitioners,* 1985, **35**, 429.

Conclusion

Patients with sleep apnoea syndrome should not have to rely on a chance awakening. An early clinical diagnosis could avert a disaster. It is a diagnosis that every general practitioner should be able to make, and the specific knowledge and skills necessary should be emphasized in vocational training schemes in the same way that the diagnoses of epiglottitis, croup and other ear, nose and throat emergencies are taught at present.

References

1. Menashe VD, Farrehi C, Miller M. Hypoventilation and cor pulmonale due to chronic upper airway obstruction. *J Pediatr* 1965; **67:** 198-203.
2. Guilleminault C, Tilkian AC, Dement WC. The sleep apnoea syndrome. *Annu Rev Med* 1976; **27:** 465-484.
3. Shapiro CM, Catterall JR, Oswald I, Flenley DC. Where are the British sleep apnoea patients? *Lancet* 1981; **2:** 523.
4. Jennett S. Snoring and its treatment. *Br Med J* 1984; **289:** 335-336.
5. Stradling JR. Obstructive sleep apnoea syndrome. *Br Med J* 1982; **285:** 528-530.
6. Guilleminault C, Simmons BF, Motta J, *et al.* Obstructive sleep apnoea syndrome and tracheostomy: long term follow up experience. *Arch Intern Med* 1981; **141:** 985-988.

Acknowledgements
I am grateful to David's parents for permission to describe the case and also to Mr M. Hardingham and Dr R.S. Ackroyd who cared for David in hospital.

Address for correspondence
Dr Richard H. Baker, 29 Leckhampton Road, Cheltenham GL53 0BA.

THE ROYAL COLLEGE OF GENERAL PRACTITIONERS

ANNUAL SYMPOSIUM

'QUALITY: WHAT IS IT AND WHAT STOPS YOU PROVIDING IT?'

FRIDAY 8 NOVEMBER 1985
BARBICAN CONFERENCE CENTRE
BARBICAN, LONDON

The Annual Symposium will be based on small group work in which members will use their own practice experience to seek ways in which to define quality and identify those factors which inhibit its achievement.

Members attending will be expected to have done two preparatory tasks as a basis for their group work. The morning session is to be on 'quality of care in arthritis' and the afternoon session is to be on 'quality in prescribing'.

If you do not like sitting being lectured at, but do like learning from your peers, and are prepared to invest a bit of preparatory effort, this is the meeting for you.

For further details and an application form please write to: Mrs Sue Smith, Education Division, The Royal College of General Practitioners, 14 Princes Gate, London SW7 1PU.