LTOT in COPD

The recent article by Dr M I Walters et al (November 1993;48:1170–7) provided a useful review of the use of long term oxygen therapy (LTOT) in chronic obstructive pulmonary disease (COPD), but it is disappointing that recommendations as to the appropriate use of LTOT remain indistinct. The UK Department of Health absolute indication (suitably hypoxic patients with COPD and a history of oedema) is unambiguous and will be replaced by the findings of the MRC study. The "relative" indication of LTOT in the much larger group of hypoxic patients with COPD but no history of oedema is less clear, because the NOTT study included a heterogenous group of patients with and without a history of oedema. This study did find that continuous oxygen therapy conferred a survival benefit to, particularly, hypercapnic patients (PaCO₂ > 45 mm Hg). It is, however, not clear from the NOTT study what proportion of these patients had a history of oedema, although one might speculate that this subgroup (hypoxic and hypercapnic patients) would have the highest incidence of oedema and thus be the patients most comparable to those included in the MRC study. Whether or not the findings from the NOTT study can be extrapolated to the whole population of patients with COPD, with or without hypercapnia, is arguable.

Clinical experience suggests that only a few patients with hypoxic COPD develop cor pulmonale. If the FEV₁ remains a powerful predictor of survival which continues to decline irrespective of whether the patient receives LTOT. It is thus possible that LTOT may be unable to prolong survival in patients in whom oedema has not occurred. In their review Walters et al quote a number of smaller studies which have examined physiological variables such as pulmonary artery and right atrial pressures – often with conflicting conclusions. Indeed they state "even if reversal of pulmonary hypertension is confirmed, its relevance in terms of survival is not yet clear."

There are, of course, issues other than survival which need to be considered – and many might argue that LTOT could improve quality of life rather than survival, and should for that reason be given to hypoxic patients without oedema. This is an important issue. The prevalence of non-oedema hypoxic COPD is such that many thousands of patients fulfil "relative" criteria for the provision of LTOT. Surely there is still a need for a further study to examine specifically the role of LTOT in hypoxic patients with COPD but no history of oedema. The principal question should be survival although "quality of life" issues could be addressed. It might even be possible to increase our limited understanding of the significance of nocturnal desaturation in these patients. This should not be beyond our means or enthusiasm; after all, the much quoted MRC report only studied 87 patients.

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This book reports the proceedings of the 3rd World Congress on Sleep Apnoea and Rhonchopathy held in Tokyo, Japan on 21–23 September 1991. All five editors are Japanese and 23 of the 32 articles have Japanese authors. The 32 articles span 174 pages, so the average article is six pages in length. They amount therefore to little more than extended abstracts and occasionally one finds this frustrating. There are undoubtedly some interesting contributions including articles on the upper airways resistance syndrome from Stanford, driving in patients with sleep apnoea from Stockholm, changes in blood gas tensions during apnoea from Tokyo, and the value of dynamic cephalometry from Sagamihara and Michigan. However, there are several articles which add little to the world knowledge of sleep apnoea.

I have to confess to a major bias against the publication of books of proceedings. Books of extended abstracts published two years after a meeting are out of date because any article containing good original science will already have been published in full in reputable journals. Indeed, this is the case for several of the articles in this book. Such volumes do not serve to make profits for publishers and pad curriculum vitae of contributors, and I personally would not advocate purchase of many of them. I certainly would not advocate purchase of this one, unless you have a burning desire to know what is going on in terms of sleep apnoea in Japan. – ND