Guidelines for care during bronchoscopy

Guidelines for care during bronchoscopy were agreed by the British Thoracic Society in January 1993. A retrospective audit of adherence to these guidelines in Scotland was performed for 23 hospitals by means of a written questionnaire and the results were presented at a recent meeting of the Scottish Thoracic Society.

Of the 33 respiratory consultants who replied to our survey, 31 routinely applied pulse oximetry during bronchoscopy. 21 wore gloves, but only eight wore a gown, four a mask, and three goggles during the procedure, despite recommendations that mask, gown, gloves, and close-fitting eye protection should be worn in all cases. Resuscitation equipment was available in the bronchoscopy suite in 31 cases, and in all but one case a nurse or second doctor was present during the procedure. Twenty-eight consultants reported that their bronchoscopy nurses adhered to the policy of the BTS Working Party on Infection Control. In 30 of the 33 replies ECG monitoring was available for patients with known cardiac problems, and in all cases antihypertensive drugs were available for potentially respiratory-depressant drugs. In general, adherence to the BTS guidelines on care during bronchoscopy is satisfactory, but in view of non-compliance with the wearing of masks, gowns and goggles, these components need to be re-addressed.

LETTERS TO THE EDITOR

Apnoea in Duchenne muscular dystrophy

Drs Khan and Heckmatt (February 1994;49: 157–61) concluded that “sleep related breathing abnormalities in Duchenne muscular dystrophy is initially obstructive . . . “. We have recently performed a night time study of six patients with Duchenne muscular dystrophy and reached somewhat different conclusions. Like them, we also observed predominantly obstructive apnoeas in some but not all patients (two out of six); both were sleepers and had macrogllossia. Four patients had central apnoeas only. This predominance of central events would agree with the data published several years ago by Smith et al. However, as correction and were analysed by Khan and Heckmatt, obstructive apnoeas can be mistakenly identified as central (the so-called pseudocentral apnoeas) when the weak respiratory muscles cannot move the thorax against a narrowed or closed upper airway. To classify such events properly, oesophageal pressure recordings are recommended. Neither Khan and Heckmatt, Smith et al, nor ourselves used this method. However, Quera-Salva et al used oesophageal pressure recording to study sleep respiratory disturbances in patients with myasthenia gravis. Although this is a different disease, it is interesting to note that, with this gold standard technique, the respiratory events at night were of central origin. We therefore believe that the conclusion of Khan and Heckmatt, that most of the apnoeas in patients with Duchenne muscular dystrophy were obstructive, because it has to be validated using appropriate methodology. Their conclusion is also weakened by the fact that the sleep studies were carried out at home in a non-supervised fashion and were analysed in a semi-automatic way. This approach would be a valuable one in screening or epidemiological studies but it probably is not appropriate for pathophysiologic research. To obtain accurate and reproducible data such studies have to be performed under supervision and to be manually scored. It is important to clarify the nature of the sleep respiratory events in patients with Duchenne muscular dystrophy because it may have therapeutic implications. If the most prevalent respiratory event is obstructive apnoea, nasal continuous positive airway pressure (CPAP) should be effective. CPAP is cheaper and easier to use than intermitent positive ventilation, which nowadays constitutes the treatment of choice for patients with Duchenne muscular dystrophy and respiratory failure.

Chest physiotherapy in cystic fibrosis

I am concerned that the paper by Miller et al (Epidemiology and Public Health 1995;50:116–9) is not a valid comparison of autogenic drainage and the active cycle of breathing techniques (ACBT) as stated.

ACBT is a method of physiotherapy which includes thoracic expansion exercises, breathing control, and the forced expiration technique (FET). The FET is an important component combining forced expiration (huffing) and breathing control. Several huffs to low lung volume interspersed with breathing control are often needed before secretions are mobilised from the smaller peripheral airways to the larger airways. It is only when the secretions have reached the larger proximal airways that the huff from high lung volume is required. The forced expiration technique described in the paper of Miller et al is similar to that above, but there is very good reason to believe that the method was performed by the patients was “one huff from mid to low lung volume followed by another huff at a higher lung volume.” Whilst this difference may appear subtle, to a physiotherapist and patient it is a major difference in technique and does not correspond with the technique previously described in the literature.

The statement that the two treatment regimens used in this study were equally good is not in dispute, but the claim that one of the regimens was ACBT is cause for concern. If my belief is correct, this study was not a true comparison between ACBT and autogenic drainage. The results are likely to mislead medical practitioners, physiotherapists, and patients and could inappropriately influence the direction of future research. Further studies are required to provide a valid comparison between these two techniques.

Barbara A Webber
Physiotherapy Department, Royal Tottenham Hospital, London NW3 6NP, UK


AUTHORS’ REPLY

In the first draft of the paper the description of ACBT differed from the published version. The forced expiratory technique was described as “one huff from mid to low lung volume, followed by another huff at a higher lung volume” which was encouraged to cough and expectorate only if


secrections were high enough". Ms Webber, who reviewed the paper when it was first submitted, is entitled to question the ACBT technique described in this study. However, the authors should have followed the statement "at a higher lung volume" by the secretions were in the upper airways". The physiotherapy during the study was supervised throughout by the same physiotherapist who is experienced and has a special interest in cystic fibrosis. The authors are therefore confident that the ACBT method used fulfils all of the characteristics of a satisfactory technique.

The only independent arbiters of the methods by patient subjects themselves. One of the authors (RN) has therefore personally interviewed six of the more mature and easily available subjects who are known to carry out treatment of their fibrosis conscientiously. Each was first informed that a leading authority on the use of physiotherapy in cystic fibrosis had questioned the method of ACBT used and the validity of our findings, and that we needed to investigate whether the ACBT that we had been taught was correct. Each subject was asked the same noncommittal question: "During ACBT, what characteristic must be fulfilled before you change from mid to low volume huffing to high volume huffing?" In each case the answer was when secretions are felt in the large upper airways. All have agreed that their names, addresses, and telephone numbers may be supplied to the editor if required.

We are therefore confident that patients under the care of the Newcastle Cystic Fibrosis Clinic are being taught and are performing ACBT correctly, and that the method used in the study was that described in the published version. We are equally confident that ACBT was used correctly during the study, and that it provides a true comparison between ACBT and autogenic drainage.

R NELSON S MILLER D HALL B CLAYTON
Royal Victoria Infirmary
Newcastle upon Tyne NE1 4LP
UK

BOOK NOTICES


Pulmonary fibrosis arises in various clinical settings. It may be a sequel to occupational dust exposure, radiation, or chemotherapy. It can accompany connective tissue disease, follow acute lung injury, or arise alone as a cryptogenic fibrosing alveolitis (idiopathic pulmonary fibrosis). In all cases the result is worsening breathlessness and a progressive restrictive ventilatory defect. The pathogenesis remains incompletely understood. Current treatments are inadequate and the prognosis generally poor. This is the first time that the excellent series on "Lung Biology in Health and Disease" has addressed this subject. Significant advances have recently been made in our knowledge of lung physiology, mechanisms of its response to injury, and the nature of fibrogenesis, both in the lung and in other organs. This volume is therefore very welcome.

The book comprises 25 chapters covering clinical aspects, pathology and physiology, extracellular matrix biochemistry, mechanisms of injury by agents such as bleomycin, hyperoxia, asbestos and radiation, the roles of cells by fibrosis, the possible involvement of platelet activating factor, complement and coagulation pathways. Finally, it devotes a chapter to future perspectives.

This is a collection of well written, extensively referenced accounts by experts in their fields. Each chapter provides state of the art introduction and introduces new perspectives. I especially enjoyed the chapters on pathology, bleomycin, alveolar epithelial cells and fibroblasts. Disappointingly, the clinical introduction presents a somewhat confusing classification that is not adhered to elsewhere in the book. There are frequent typographical errors, inconsistencies in illustration style, and the book might have benefited from more careful editing.

Nevertheless, as a compendium of current research it is indispensable to researchers. Clinicians should make a place for it in their patient management, but every teaching hospital library should purchase a copy, and all respiratory departments should have access to it. Let's hope your library purchases a copy; at $235.00 it may be beyond most individuals.

RC


This is a large, expensive book, although its weight and quality of authorship, is in the event, equalled by its weight of knowledge. Being multi-author there is occasional (sometimes irritating) overlap of areas covered. The index could be improved – a referral to "the characteristic histology of steroid resistant asthma" being dealt with elsewhere resulted in a fruitless search. Of the 1500 pages less than 10% are given to treatment/management. The feel is, therefore, of a book aimed more at the scientist than the clinician but, for the clinician with a scientific bent, this book holds a great deal of reasonably accessible information. A problem recently enumerated but long recognised is that text books are significantly out of date by the time they are published. This is inevitable and this book is no exception, although it can justly claim to be the most up to date text available. For instance, recent areas of major debate in the field of asthma are the possible role of air pollution in asthma mammals, β agonists make asthma worse. I could find about half a page overall on air pollution and only passing mention of the β agonist debate. Nevertheless, the whole area of asthma and rhinitis is changing by the moment – updating a book of this size is just not possible using the printed page format. The advent of books such as this on CD ROM will surely reduce the lag between scientific advance and incorporation in the written word, and surely the way these volumes have to move as they will allow selective updates in those areas which advance the fastest. My criticisms are, however, minor and I can fully recommend this book for the active medical library, although individuals may find the cost prohibitive even though it works out at just 10p per page!

If you wish to order or require further information regarding the titles reviewed here, please write to or telephone the BMJ Bookshop, PO Box 295, London WC1H 9JR. Tel 0171 383 6244. Fax 0171 383 6662. Books are supplied post free in the UK and for BFPO addresses. Overseas customers should add 15% for postage and packing. Payments can be made by cheque in sterling drawn on a UK bank or by credit card (Mastercard, Visa, or American Express) stating card number, expiry date, and full name. (The price and availability are occasionally subject to revision by the Publishers.)

NOTES

European Asthma School

A three-day intensive course on experimental and clinical aspects of asthma will be held in Ghent, Belgium on 21–23 November 1995. For further information contact the Department of Respiratory Diseases, University Hospital, De Pintelaan 185, B9000 Ghent, Belgium. Phone: 32-9-2402611. Fax: 32-9-2402341.

Occupational asthma in practice

A course on "Occupational asthma in practice" will be held at the National Heart and Lung Institute and Royal Brompton Hospital on 7 and 8 November 1995. Course organiser: Dr K M Venables. Enquiries to Conference Centre, telephone 0171 351 8172 (24 hour answering service). Fax 0171 376 3442.

Mechanisms and treatment of airway inflammation in asthma and COPD

A meeting on "Mechanisms and treatment of airway inflammation in asthma and COPD: an update", organised under the patronage of the Italian Chapter of the American College of Chest Physicians, will take place in Taormina from 30 November to 2 December 1995. For further information contact the Organising Secretariat at Studio Santuccio SNC, 95124 Catania, Via Francesco Battiato 9, Italy. Telephone +39 95 317785/320999. Fax +39 95 320999 or the Scientific Secretariat at Istituto di Malattie Respiratorie, 95125 Catania, Via Pasco Gravina 187, Italy. Telephone and fax +39 95 7594532.

CORRECTION

Lung injury in patients following thoracotomy

In the paper entitled "Lung injury in patients following thoracotomy" by J Hayes et al which appeared on pages 997–101 of the September issue, lines 10–12 of the second paragraph of the Discussion on page 991 should have read "... our own incidence of 4–9% following pneumonectomy is broadly comparable."