Book Reviews

Atlas of Applied Pulmonary Physiology
Richard M. Wahba (Ed.). Zeneca Pharma, 1999.

This atlas is a multi-authored book with contributions from several anesthesiologists with international reputations. Unquestionably, a well-designed diagram is an essential tool for any discussion of respiratory physiology. Hence, the concept of a teaching tool based on a series of diagrams explained in expanded legends. This approach works well for chapters 2, 4, 7, and 9 to 13. Chapter 2 clearly depicts the need for anterior displacement of the hyoid bone in laryngoscopy. Chapter 4 contains many well-designed diagrams, clearly explained. The role of atelectasis and airway closure during anesthesia is clearly depicted in chapter 7 and Figures 10.2.1-3 provide excellent summaries of factors affecting end-tidal/arterial CO_2 gradients. All sections of chapter 11 are strong, with excellent sections on one-lung ventilation and the five critical periods in management of lung transplantation. Section 12D emphasizes the often-neglected issue of nutrition. The sections on postoperative pulmonary function changes and the physiology of epidural analgesia are all well done.

However several chapters are marred by incorrect units (Figures 1,2,3), unlabeled isopleths (e.g. Figures 8,4,5), mystery lines (Figures 8,4,3), or garbled legends (Figures 1,3,3). These irregularities are part of a larger problem of inadequate proof-reading and inconsistency of style. For example, the basic physiologic convention for abbreviations is followed erratically and mean values are rarely indicated in abbreviations.

Also, several topics are ignored. Work of breathing is addressed sketchily, ARDS is discussed with no mention of the concepts of ventilator-induced lung injury that have been a major focus of ICU debate for at least eight years, and there is no mention of newer data de-emphasizing the influence of gravity on perfusion distribution in the lung.

This atlas definitely contains diagrams I will use for teaching. However this is not the book for the clinician or resident with little respiratory physiology background. It assumes a basic knowledge of terms and concepts. Its niche will be for review of concepts once known but now fuzzy, and as a source of illustrations for teaching.

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Acute Respiratory Distress Syndrome
James A. Russell, Keith R. Walley (Eds.). Cambridge University Press, 1999. 356 pages. $49.95 (US)
ISBN 0521654106

The editors, two well known intensivists, attempted to present a comprehensive coverage of the topic. The contributors (1 Finn, 13 American and 8 Canadian) are all experts in their fields. Thus, the book promised to be a welcome addition. The 14 chapters (340 pages of text) do, indeed, cover the entire topic. The inevitable overlap due to multiple authorship, is quite acceptable. There are a few problems which, with careful editing, would have been avoided:

1. The use of respiratory symbols. There is a lack of strict adherence to the norm throughout the book (e.g. the use of F_1, and not $F_{1\,l}$, V for volume per unit time and not $\dot{V}$.)
2. Many of the figures are an eyesore. This is due to a disproportion between line thicknesses, font sizes and bold *vs* normal print. The unimportant sometimes overshadows the message.
3. The measurement units are missing from the graphs in a number of instances (e.g. most of chapter 6).
4. There are errors in some of the graphs. For instance IRV is PEEP in disguise. Thus Paw does not go back to 0 as figure 7.3 suggests.
5. Pointers to the salient features in the photomicrographs would be very helpful for most readers.
6. The various algorithms and homograms in chapter 9 need "beautification" (font size / bold print). Also avoidance of very local colloquialism (e.g. IVP in the context of *iv* medication).

I thoroughly enjoyed chapters 1 to 4 dealing with the overview, epidemiology, pathology and mechanisms. Although chapter 6 (cardiovascular management) was well written, the chapter on pulmonary pathophysiology (chapter 5) by the same pens was a disappointment. The cardiopulmonary interaction in terms of O_2 content and delivery is best explained in terms of the oxyhemoglobin dissociation curve and then by the delivery/consumption concept (as in Figure 6.7). There is no discussion of the work of breathing. Chapter 6 should include more information on the complex, multifaceted aspect of the effects of PEEP.

The chapter on mechanical ventilation is a well-reasoned approach to the topic. "Weaning" from mechanical ventilation is presented in a very interesting manner and reflects the authors' vast experience, but more information on a) all predictors and b) the specificity and sensitivity of the various predictors would have been most welcome. Perhaps a detailed discussion of weaning failure should have been included.

The topic of "total patient care" (chapter 9) obviously reflects a specific institutional approach (very cook bookish) but can serve as a guideline for others. The chapter dealing with innovative therapy, resolution and outcome are informative and enjoyable.

In summary, such a book is welcome and should, ultimately, be made available in ICU libraries. The negative points raised above will improve the quality of a revised edition.

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