BOOK REVIEW

New Perspectives in Monitoring Lung Inflammation: Analysis of Exhaled Breath Condensate

Edited by Paolo Montuschi
CRC Press 2005; London, New York, Washington, DC
Pages: 218. ISBN: 0-415-32465-3

This book on exhaled breath condensate (EBC), edited by Paolo Montuschi, mirrors the large interest in a method, which promises a totally noninvasive way to assess airway inflammation.

It is of great relevance for those who decide to enter this field of research, as it provides an extensive review of the published literature as well as a critical view on open questions and methodological issues

The book contains 14 chapters written by well known expert researchers. Following an introduction into the method and an excellent detailed description of the formation of EBC and its physiochemical properties, four chapters cover the major markers of interest related to airway inflammation: (I) isoprostanes, prostanoids and leukotrienes; (II) hydrogen peroxide; (III) nitricoxide derived markers; and (IV) the measurement of pH in EBC. Furthermore, there are chapters on EBC measurement in children, a great chapter on the comparison of EBC with other noninvasive methods to assess airway inflammation, one on the implications for diagnosis and therapy and a look at potential future developments in EBC methodology. Finally, the book gives three general overviews, on prostanoids and leukotrienes, neurogenic airway inflammation and on the role of cytokines and chemokines.

Most authors present a very enthusiastic, but often rather speculative view of the EBC methodology. The editor, however, allowed critical views and open discussions between contributors as well as opposite opinions on methodological issues; enabling the reader to get a very balanced view of the potential of EBC today.

In this respect, it is also important that EBC is compared with other methods to assess pulmonary inflammation.

Chapters on methodological issues generally contain a number of good descriptive figures and tables, while these are rather scarce in chapters reviewing extensive amounts of literature. Here the book fails to highlight important results and to demonstrate typical data of EBC measurements more extensively.

Although probably difficult to avoid, the book does contain a bit of redundant information, due to the structure of each chapter with individual introductions and references. Prostanoids and leukotrienes are even dealt with in two chapters. One of these, together with the two other general overviews on neurogenic inflammation, cytokines and chemokines, at the end of the book, are well written and present a good overview, but are unexpected in a book on EBC analysis.

Overall the book contains an extensive review of existing research in the field of EBC and addresses many important outstanding issues and limitations for its use in clinical practise. Therefore, the book seems to be more suited for the ambitious scientist and those interested in the status of this methodology, rather than for clinicians looking for simple recipes for using exhaled breath condensate in daily practise.

O. Holz

Grosshansdorf, Germany.