

Preface

The study and management of disorders of the thoracic organs represent an essential part of the physician's work, and this necessarily involves an understanding of the plain chest radiograph as the routine imaging study. This has always applied to the diagnostic evaluation of the heart and great vessels. Yet even as pulmonary medicine has moved beyond its classic focus on tuberculosis, chest radiography has experienced a renaissance in clinical practice and research in the diagnosis of pulmonary disorders.

This book is the product of my daily work as learner and teacher alike and reflects the interactions with medical students, residents, and practicing clinicians. Its intent is to enable the reader to answer with confidence the most important questions associated with the plain chest radiograph that one encounters in everyday clinical practice. Diagnosticians are invariably forced to defend their evaluation against other preconceived notions. Nothing is more difficult than correcting preexisting erroneous opinions. Often this requires patient persuasion by objective analysis instead of "intuitive" interpretation of the radiograph.

The present volume on diagnostic chest radiology attempts to awaken the reader's awareness and appreciation of an interpretation strategy oriented to morphologic details. This is not to say that the more intuitive interpretation of radiographs is necessarily wrong. Yet that method requires extensive experience and many years of intensive guidance during training. The latter has become rare as jobs have been eliminated and specialists are now in short supply. One also notices a distinct lack of books on the subject that employ an incremental analytic approach. Current textbooks and manuals include extensive descriptions of etiology, pathophysiology, and clinical aspects whereas the actual radiographic signs (which findings are associated with this disorder?) are usually discussed only briefly.

The present book is thus intended as a supplement to more comprehensive textbooks of chest radiology. In a certain sense it represents a surrogate for those experienced supervising physicians under whose auspices we had the privilege of studying in the early 1990s in the Radiology Clinic of the Johann Wolfgang Goethe University Hospital in Frankfurt am Main, Germany, under its director at the time Professor Juergen Kollath, MD. Here I would like to express my gratitude to my academic instructors Professor Dieter Liermann, MD, Bochum, Germany; Associate Professor Ulrich Loercher, MD, Wiesbaden, Germany; and Professor Volkmar Jacobi, MD, Frankfurt am Main, Germany.

The structure of the book largely follows the proven design principle of the two-page spread. Descriptive text and explanatory graphic images appear opposite the actual figures on the facing page. Each chapter is concluded with several representative review cases intended to awaken readers' interest in researching or compiling their own case series. The reader will note that we have completely dispensed with literature citations. This was done intentionally. With Internet access now ubiquitous, the familiar search engines are in a far better position to provide more current

and more comprehensive information to facilitate further study of the content presented than the most exhaustive bibliography could ever hope to do.

Although by their nature brief, the historical notes sparingly added to each chapter do more than simply break up the theoretical text and provide a memory aid. They are also intended as a conscious reminder to the reader of those who have gone before us and who have made our current knowledge possible.

One may criticize the gaps in the book, but limiting it to essentials appeared more important than attempting an encyclopedic treatment of the subject. An atypical pneumonia will be properly recognized when the radiologist has learned the fundamentals of shadowing typical of an infiltrate, even when he or she has not previously encountered rarities such as the pattern produced by Mucor pneumonia. Consequently, I have intentionally opted to leave out particularly spectacular cases (a decision that was painful at times) in an effort to do justice to more common everyday findings. It is precisely these common findings that often receive too little attention in scientific literature, and they deserve more comprehensive treatment. The various manifestations of the widespread disorder smoker's bronchitis are one example. There is a marked discrepancy between the frequency of the use of terms such as "peribronchitis," "signs of chronic bronchitis," "bronchitic shadowing," etc. in everyday radiologic practice and definitions of these key terms in published literature. Especially in light of the socioeconomic significance of such findings, I hope to have contributed to further clarifying these terms.

The studies leading to these results would not have been possible without close long-term cooperation with clinical colleagues. Here, I would like to express my gratitude to Professor Juergen Meier-Sydow, MD, former director of the Department of Pulmonary Medicine of the Frankfurt/Main University Hospital, whom I greatly admire. It was my privilege to assist him during my internist training on his private ward. Special thanks are also due to my dear wife Esther-Maria Kirchner, MD, who in her capacity as senior supervising physician in the Department of Hematology and Oncology at the Bochum/Herne University Hospital maintained the connection to internal medicine and without whose support and constant encouragement this book would never have been possible.

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