

Interpreting Chest X-Rays: Illustrated With 100 Cases. Philip Eng and Foong-Koon Cheah. Cambridge: United Kingdom: Cambridge University Press. 2005. Soft cover, illustrated, 202 pages, \$45.

While widely used in clinical practice, the chest radiograph still poses a challenge for the practicing clinician, in part because of the large variability in the way radiology is taught. *What to look for* on a film and, surprisingly, *when to order* a chest radiograph are new dilemmas in an era of sophisticated computed tomographic semiology, in which the latter usually confirms or further characterizes the diagnostic findings of the former.

Soft-cover, 100-cases image books are abundant nowadays and mostly focus on odd, rare, or difficult cases. The classic reflexes in medical education are still behavioristic, with a "fool-and-reveal"-dominant approach. Oscar Wilde once said, "Experience is the name everyone gives to their mistakes." This underground motif can be recognized in almost every other radiology book, and is inversely related to the degree of "systematism" that characterizes it.

It is already a truism that medical (differential) diagnosis is built on statistical reasoning and pattern recognition. How to obtain the latter in medical education when teaching imaging? One can reach it through a painful and time-consuming systematic approach that emphasizes the value of *variations*, or by diving into a pragmatic approach of *typical pattern* learning, which, unfortunately, will be forced by space constraints to fit into a "magic" number stringency (100 illustrations?). This book falls into the second category, but the danger of submerging in wrong-footing/exotic rather than simple/typical seems to be well avoided; the authors maintain a good balance between these 2 "temptations."

In the preface, Eng and Cheah state that the intended audience of their "collection of pearls" is medical students and residents, and it does seem to reach very well the educational goal for that level of medical training, although the book's potential audience may very well be wider than that.

This book illustrates a nice and useful collection of 100 chest radiographs, each case with a short description, followed on the verso by supportive imagery, with specific markings and a short description of the radiographic feature, sometimes accompanied by a very succinct differential diagnosis. The clinical scenarios are brief, avoiding distractions and red herrings.

The book is a progressive journey from simple to complex and from obvious to more challenging imagery (clearly, one of the major strengths), and in the end the reader will feel that he or she has achieved "something." A revised edition would benefit from a stronger differential diagnosis section at the end of each case, with good cross-referencing, encouraging a second reading of the material in a more pattern-clustered way.

The authors succeed in presenting good images of parenchymal disorders such as pneumonia, acute respiratory distress syndrome, sarcoidosis, lobar atelectasis, tuberculosis, pneumothorax, broncholithiasis, lung abscesses, and mycetoma. Nonparenchymal diseases such as pleural effusions, calcification and lipoma, mediastinal masses, hilar adenopathy, pericardial cyst, cardiac tamponade, and dissecting aneurysm/traumatic disruption of the aorta are also well sampled. No less than 12 cases of lung cancer and solitary pulmonary nodule can be found, which nicely emphasize today's epidemiologic reality that lung cancer is common and serious, and that the incidental pulmonary nodule has become a prevalent condition, with as-yet-unclear optimal approach.

While the quality of several of the images could be improved, the majority of the pictures are readable, at least for the intended findings. Some may argue that crystal-clear images may dilute or even obscure the nondominant features and patterns ("Seek simplicity and distrust it?"). I will let the reader decide if films rich in findings aren't in fact the solution to the inherent space constraints. Also, from a structural point of view, a more rigorous construction and an algorithmic approach to the chest radiograph interpretation may be desirable for inexperienced readers. As someone who also practices critical care medicine, I admit that I value every bit of information derived

from a supine, anteroposterior, noncentered, rotated, under-penetrated radiographic film.

Possible enhancements for future editions might include examples that illustrate the differentiation between parenchymal and pleural processes, the distinction between anteroposterior and posteroanterior techniques, extracorporeal artifacts in radiographs taken in the intensive care unit, the concept of vascular pedicle width, vascular anatomic abnormalities seen with central line placements, and cardiomegaly. For a collection of pearls, one would also want to see or at least find mentioned in the descriptive part finesses such as sharpened subcarinal angle in tension pneumothorax, displayed central diaphragmatic dome, more examples of the silhouette sign, different upper mediastinal masses, bamboo spine, and vertebral lytic lesions.

A book that is a collection of chest radiographs almost universally has an acceptability complex without additional computed tomographic and bronchoscopic images. Indeed, the reader will find them in the verso sets: about 40 tomographic images and (only) 4 black-and-white bronchoscopic images. It is, again, the current paradigm shift to the widespread use of computed tomography as a more "direct" view to the chest structures. Nevertheless, we should not forget the availability, cost, and radiation-dose differences between these 2 imaging modalities.

This book lies in the large déjà vu constellation of radiograph publications, and fits nicely mid-distance between easy-to-diagnose/typical and odd/atypical/baffling case books. With good sampling of elementary and of more sophisticated radiographic signs, it serves both the introductory and consolidative purposes and may very well target readers as diverse as respiratory therapists, medical students, and physicians in training, up to the more versed and experienced clinicians.

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