Book Review

Magnetic Resonance Imaging of CNS Disease: A Teaching File
Douglas H. Yock, Jr. 2nd ed. St. Louis, Missouri: Mosby; 2002. 842 pages, 1355 illustrations.
$197.00.

Magnetic Resonance Imaging of CNS Disease: A Teaching File consists of 22 chapters of brain and spine imaging, followed by a pictorial index, for a total of 842 pages, including an index. Sixteen chapters are devoted to brain pathology, and six chapters are related to spine and spinal cord pathology. The book contains 1276 cases in a teaching file, or case-based, format. This book is the second edition of what, in the first edition, was known to be an excellent teaching file text. The second edition contains approximately 120 additional pages, including four new chapters and 182 additional cases.

According to the preface, the intent of the new edition is to "incorporate technical advances and growing clinical experience." The author states that approximately half of the images from the first edition have been replaced with updated images or better examples, and additional pathologies are presented. To this end, the author's goals have been met. Beyond the many images that were not part of the first edition, this edition discusses and illustrates such techniques as fluid-attenuated inversion recovery, diffusion, perfusion, and spectroscopy. Many chapters have been expanded or divided to provide room for additional cases. Unfortunately, the orbit chapter from the first edition is not included in this one. I can only hope that it has been excluded in anticipation of a teaching file text of similar quality focusing on head and neck imaging.

A table of contents listing the illustrated differential diagnosis—divided into the supratentorial compartment, posterior fossa, and spinal canal—is found on the inside of the front and back covers. The table has been expanded, appears in a more conspicuous location, and serves as a quick reference when a diagnostic dilemma is presented during the workday. This table highlights one of the book's many strengths.

The chapters are organized with the basic appearances of disorders on T1- and T2-weighted images followed by an increasing complexity of imaging findings for that process and differential diagnostic possibilities. All cases are preceded by the age of the patient and clinical signs and symptoms, followed by the imaging parameters of that case described in parenthesis. Two large images are presented on each page (a group of four images on facing pages). Beneath the images, the diagnosis is listed with a cross-reference to another case if the same patient has been used elsewhere in the book. This reference allows a review of the same pathology in multiple planes or on differing sequences. Text follows beneath the images on each page. The particular entity highlighted in those cases is discussed, followed by a description of

the imaging findings. Differential diagnosis is often discussed with reference to additional cases that have similar features. A minor criticism relates to referencing by case number only. For instance, a description of similar or differential imaging features may be followed by "(see Case 484)." Although it is not difficult to find case 484, it would be less time consuming if the reference stated "(see Case 484, page 297)."

Throughout the chapters are interspersed pages headed with "Differential Diagnosis" of a particular finding or entity. The cases are listed in the table of differential diagnoses inside the front and back covers. These pages are not only helpful in generating a differential diagnosis, but often demonstrate how entities can look similar, if not identical. The underlying text discusses the imaging and clinical features to help narrow the differential diagnosis as well as offering other potential causes of a finding.

References are included at the end of each chapter. All of the references are current and taken from journal articles, although none is specifically referred to in the text. The index is easy to use. There are, however, a few items within the text that are difficult to find, because they are absent from the index. For example, in the past I have struggled with the first edition to find the cases discussing external hydrocephalus and do likewise with the second edition. These cases are in the chapter "Hydrocephalus and Cysts," on page 491, with a very good discussion of the entity, but they cannot be found in the index under any of the various labels given this condition. Also, imaging techniques such as diffusion, perfusion, and spectroscopy are incorporated into cases throughout various chapters but cannot be found through a search of the index.

Image quality is excellent throughout, with up-to-date images covering all imaging parameters. The editing is superb and the cropping is excellent, focusing on regions of pathology with concise placement of arrows to demarcate all abnormal regions or other areas of interest.

Of great value is the pictorial index at the end of the text. The index begins with a table of contents for easy reference. Thirty-five topics have been chosen, each one illustrated by six to nine entities. For example, "lateral ventricular tumors" is followed by nine images, all of different pathologies. The number of each case is listed for reference to the main index. The first edition does not include a table of contents for the pictorial index, and ten new topics have been included in the second edition. The author specifically states that the pictorial index is incomplete and should be utilized as a partial survey rather than a comprehensive inventory and refers the reader to the

general text for a more complete discussion of the subjects.

In summary, this book is an excellent teaching file text of MR imaging in the evaluation of brain and spine pathology. The book may be used as a primary source of information by residents throughout their training in neuroradiologic MR imaging, although they will need to turn elsewhere for MR imaging physics. This book may also be used as a case-based review for senior residents and neuroradiology fellows as well as a reference source whenever needed. The first edition was the textbook I most often recommended to my residents and fellows when they asked for an interesting and accessible neuroradiology MR imaging text. It is also the text I most often refer to for differential diagnosis or atypical imaging features on a regular basis. I will enthusiastically continue to do so for the second edition.