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Neuroimaging Clinics of North America: Head and Neck MR Imaging.

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Neuroimaging Clinics of North America: Head and Neck MR Imaging. Vol. 14, no. 4, SK Mukherji eds. WB Saunders, November 2004. 876 pages.

The November 2004 issue of the *Neuroimaging Clinics of North America* (NCNA), deals with head and neck MR imaging and includes separate chapters on the upper cranial nerves, the lower cranial nerves, the larynx, sinus tumors, hypopharynx/esophagus, perineural tumor spread, neck nodes, nasopharynx and skull base, temporal bone, temporomandibular joint, salivary glands, globe and optic nerves, new techniques, and MR-guided ablation of head and neck tumors. So, by the titles of the chapters it would appear that this is a rather complete update of imaging in this area, but this volume falls short of what the title implies.

It is worthy of note every chapter in this book is reprinted from a 2002 issue of the *Magnetic Resonance Imaging Clinics of North America*. The preface to this issue of the NCNA should have at least acknowledged that this in essence was a reprint of a 2-year-old "clinics" issue. Substantial descriptions of current techniques are absent, and it is surprising that vascular imaging of neck was ignored, as is often the situation when books, syllabi, and monographs on the head and neck are written. It is almost as if the carotid and vertebral arteries are not part of neck imaging. Nonetheless, in this NCNA issue the chapters are adequately illustrated with reasonable quality MR and CT images.

There are two chapters on cranial nerve imaging and the subject is dealt with in a traditional and straightforward way. Adequate disease on MR is shown, but it is somewhat disappointing that the author did not spend time on MR techniques or appropriate protocols in evaluating these structures. A chart with recommendations for scanning would have added significantly to the material. It was also surprising that the two chapters overlapped when it came to the 7th and 8th cranial nerves. This should have been found in just one chapter, not both.

The chapter on laryngeal imaging is a bit odd. It basically starts out describing the radiation therapy, surgical treatment, and combined chemotherapy and radiation for laryngeal tumors. Subsequently, it talks briefly about pretreatment and post-treatment imaging. There is inadequate delineation of specific MR and CT techniques that are applicable to larynx, which should have been included in a book directed toward neuroimaging.

The chapter on paranasal sinuses correctly identifies this as a chapter dealing strictly with neoplasms and it contains the cancer staging nomenclature for maxillary and ethmoid sinuses and the associated nodes. Somewhat disappointing however, was the older MR image quality of the paranasal sinuses. Again, as with prior chapters, there is scant information on techniques and recommended protocols. The section on the hypopharynx and cervical esophagus is good because it is an area insufficiently covered in some texts. It lays out protocols and makes some nice points concerning the imaging of this area. But, as with other chapters, this basically deals with neoplasms, which is understandably the major concern in imaging this area. When taken as a whole, this entire clinics volume should have been *Oncologic Imaging of the Head and Neck*, and portions of some chapters that did not deal with anatomy and tumors should have been dropped. That would have given the publication a more unified and precise goal.

The chapter on perineural tumor spread is well described and the images shown are of high quality. This is an area that deserves extra attention by the reader because the findings are often subtle; instructive line drawings amplify the discussion and the imaging. The chapter on lymph nodes of the neck is MR based. Here a direct comparison between MR and CT imaging would have been a reasonable addition to the MR imaging information. Because this is basically a review of abnormal nodes and their location, a line drawing showing these nodes, rather than a table indicating their location, should have been included. Concentrating just on MR imaging for evaluation of cervical lymph nodes ignores the fact that, in general, CT imaging is probably used more frequently than MR imaging for lymph node evaluation. The lack of adequate labeling of the images is a drawback in this chapter, particularly because the findings are often subtle or there are findings with which the reader may be unfamiliar. Why the authors and the editor felt it inappropriate to identify most abnormalities with arrows is a mystery, and it sits in stark contrast, for example, to the chapter on the temporal bone, where there is abundant and appropriate labeling.

To show the relative nonintegrated construction of this book, the chapter on skull base covers a number of aspects of this region, including normal anatomy, congenital lesions, dysplasias, and neoplasia. This again is in contrast to some of the other chapters where the emphasis was placed solely on tumors. Examples in this skull base section contains typical imaging abnormalities which are well chosen and of good quality.

The temporal bone is dealt with in a reasonably complete fashion, starting with descriptions and illustrations of normal anatomy and from there going to a depiction of a wide variety of imaging abnormalities, not just neoplasms. In a review chapter such as this, a small section should have been devoted to imaging techniques, both CT and MR imaging with a table showing the various parameters in current use. Because the demonstration of many temporal bone lesions depends heavily on the implementation of robust imaging techniques, it is not clear why this information was not included in a separate section of the chapter.

Fortunately in the temperomandibular joint chapter, a page is devoted to illustrations of the disease in this area. This chapter could have been strengthened by diagrams of the joint, disk, the bands, and their derangements in the major pathologic conditions.

All in all, this issue of the *Neuroimaging Clinics of North America* on head and neck MR imaging is disappointing. Strong guidance to augment previously published material with specifics on techniques and comparative value of MR versus CT imaging in a number of areas could have salvaged this publication. Although it is understood that these issues are not intended to be full-length textbooks, that points out even more clearly that the title and content of this issue should have been more focused. Basically, there is little in this issue of the NCNA that cannot be found in standard head and neck textbooks (such as Som and Curtin's Head and Neck Imaging, volumes 1 and 2, Mafee, Valvassori, and Becker's *Imaging of the* Head and Neck, or Harnsberger's Diagnostic Imaging: *Head and Neck*). Besides the information on integrating functional MR imaging into the routine imaging of the brain (and this really touches only minimally on head and neck imaging) and a very brief chapter on MR-guided ablation of head and neck tumors, there is little to recommend this volume, because more complete information and better illustrative material is easily found elsewhere.