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BOOK REVIEW

Neuroimaging Clinics of North America: Cranial Nerves, Vol. 18, No. 2

J. Casselman, Guest Editor. Elsevier; 2008, 247 pages, \$99.00.

The May 2008 issue of the *Neuroimaging Clinics of North America*, guest edited by Jan Casselman, deals with each of the cranial nerves in normal anatomy, optimized techniques (predominantly with MR imaging), and the pathologic processes germane to each cranial nerve. In addition to those chapters, other chapters deal with important syndromes: Horner syndrome, denervation atrophy, and perineural tumor spread.

A total of 42 authors, predominantly international in nature, have contributed to this volume, and one cannot help being impressed with the thoroughness of the material and the quality of the images. Despite some strange or redundant wording in parts of the issue (eg, the legend from Figure 5 states, "The hypoglossal nerves are seen as gray structures surrounded by contrast enhanced surrounding venous structures;" the term *round foramen* is used instead of *foramen rotundum*; and the word *detaches* is used when the authors mean *branches*), the text is easy to follow, and the clinical and imaging examples are well chosen. In fact, some of the thin-section, high-resolution images are spectacular; they are of such high resolution that one wonders about some observations such as the patient in whom there is described a "neurovascular contact" between a small branch of the superior cerebellar artery with the root exit zone of the trochlear nerve causing a superior oblique myokymia. Nonetheless, this case and others give one pause in thinking about how many ultrasmall abnormalities are missed when high-resolution MR imaging is not used.

The opening chapter on techniques and what is termed *advanced anatomy* is excellent, but one could quibble with the term *advanced* (de-

tailed anatomy is more in keeping with the subject matter because anatomy itself does not become advanced; only the depiction of it does). The MR images of all of the areas are worth a thorough review by neuroradiologists because, with these images, we now look for structures that previously may have not been recognized or appreciated. Such structures include the medial and lateral striae of the olfactory tract, the choroid of the globe between the retina and sclera, the divisions of the oculomotor nerve, the multiple rootlets of the trigeminal nerve in relationship to the Gasserian ganglion, the pterygopalatine nerve, CSF within the Dorello canal, the Scarpa ganglion, and the spinal accessory nerve in the upper cervical spinal canal, among others. It is important to note that the reader comes away with a knowledge of the technical factors (sequences, section parameters, and coils) needed to produce these images. The illustrations of pathologic involvement of the cranial nerves are well chosen. Many generally unrecognized or underappreciated abnormalities are shown, whereas more readily recognized lesions are depicted, allowing a thorough review of many congenital, inflammatory, and tumoral entities. Again, as in the first chapter, techniques are described in each subsequent chapter, which hopefully will allow the reader to achieve equivalent images, whether on 3T or 1.5T systems. Among lessons shown are dysontogenic cysts within or adjacent to the olfactory bulb, radiation-induced papillitis, congenital absence of the facial and cochlear nerves, intracranial hemangiomas, and lipomas. Excellent chapters on the syndromes (Horner syndrome, denervation atrophy, and perineural spread) include pertinent artists' drawings, tight clinical and functional anatomic correlations, and appropriate patient pictures.

Most chapters have adequate clinical information to supplement the imaging and their findings, and often clinical signs (eg, Hitselberger sign) are raised, which are not known to most radiologists. Despite occasional lapses in copyediting and proofreading in which sentences are incomplete or poorly worded, this issue of the *Neuroimaging Clinics of North America* should find its way into every neuroradiology library.

In summary, this is a highly worthwhile and recommended volume of the *Clinics* because it describes the structures, techniques, and pathology that every neuroradiologist encounters on a daily basis.

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