Are your MRI contrast agents cost-effective? Learn more about generic Gadolinium-Based Contrast Agents.





Cranial Nerves: Functional Anatomy

AJNR Am J Neuroradiol 2007, 28 (10) 2033 doi: https://doi.org/10.3174/ajnr.A0832 http://www.ajnr.org/content/28/10/2033.3

This information is current as of April 19, 2024.

The next 4 chapters discuss the various pathologic conditions of the mandible and maxilla; these include congenital, infectious, and neoplastic lesions. Plain radiographic and CT and MR features of several different conditions in each category of diseases are discussed to familiarize their imaging characteristics to both dental and other medical specialists. Although I appreciate that this work is not intended to be a textbook, it would have been helpful to include the clinical management of the various disease conditions as well as the cancer staging nomenclature of the different head and neck neoplasms and their treatment options.

The chapter related to the temporomandibular joint gives valuable practical information about the potential usefulness of state-of-the-art MR compared with previous conventional imaging modalities in practically all categories of diseases. In selected cases, illustrations from surgical and autopsy specimens that supplement the MR images are also very informative. The next 4 chapters elucidate the gamut of pathologic conditions that pertain to regions closely related to the jaw. These conditions include dental implants, maxillofacial trauma, craniofacial deformities, and disorders of the paranasal sinuses. The chapter on dental pathology, including implants, is a very useful overview for the medical profession because this area is well known to dentists. The potential of CT, including advanced conebeam techniques along with high-quality reconstructed images, is provided.

A comprehensive overview of the various types of maxillofacial fractures and imaging modalities, including advanced CT reconstruction modalities available in the different subtypes of fractures, is discussed at length in the chapter on facial trauma. In the chapter on disturbances of facial growth, a thorough review and illustrations of craniofacial anomalies, with emphasis on the complementary role of both 2D and 3D CT imaging, are discussed.

The next 2 chapters focus on the evolving role and advantages of advanced imaging techniques, namely CT and MR, compared with traditional dental/conventional plain radiographs (that dentists are more familiar with) in the diagnosis of diseases of the paranasal sinuses and the adjacent maxillofacial soft tissues, which include lesions of the oropharynx or oral cavity and deep neck spaces.

At the end of the book, a particularly useful chapter deals with lesions of the surrounding tissues that the radiologist will commonly encounter during the work-up of a patient with a maxillofacial lesion. Clinical and imaging characteristics of a potpourri of congenital, degenerative, inflammatory, infectious, and neoplastic conditions are discussed.

Finally, the last chapter includes various interventional procedures for the treatment of assorted pathologic conditions of the orbitofacial region that the maxillofacial radiologist may be asked to perform. Indications and techniques of procedures such as arthroscopy of the temporomandibular joint, a sialogram, biopsy of the deep neck space, and embolization of a hemangioma are briefly covered.

In summary, the authors have achieved their goal of providing an introduction to the role of advanced imaging modalities, primarily CT and MR, in maxillofacial imaging. Overall, this book is well organized and has a unique format that meets its intended purpose. It is a concise "atlas" that is simple to use and to the point, with a plethora of high-quality, clearly labeled illustrations. However, for particular topics in which specific details are needed, the audience should be warned that it may need to research other material as well. The authors are encouraged to use this book as a foundation for future editions of a more formal textbook on maxillofacial imaging. I recommend this book to anyone who is interested in maxillofacial radiology.

DOI 10.3174/ajnr.A0721

BOOK BRIEFLY NOTED

Cranial Nerves: Functional Anatomy

S. Monkhouse, ed. Cambridge, UK: Cambridge University Press; 2005,162 pages, \$50.00.

This 162-page pocketbook, derived from notes made initially for Professor Monkhouse's medical students, would be useful both as a quick reference and as a good introduction to the cranial nerves. It is well organized; the first section is on the major concepts and basic anatomy of the cranial nerves and the subsequent 4 sections are organized by function. For example, all cranial nerves dealing with eye movement and sight are grouped together. Each chapter within a section introduces the pertinent cranial nerve or division, its basic anatomy, clinical-pathologic correlations and finally how the function of this nerve is tested in a clinical setting. There are 26 line drawings and 9 tables that help elucidate many of the concepts from the text.

DOI 10.3174/ajnr.A0832

BOOKS RECEIVED

Imaging of Head and Neck Cancer. A. Ahuja, R.M. Evans, A.D. King, C.A. van Hasselt, eds. London: Greenwich Medical Media Ltd.; 2003, \$90.00.

Magnetic Resonance Imaging in Stroke. S. Davis, M. Fisher, S. Warach, eds. Cambridge, UK: Cambridge University Press; 2003, 280 pages, 21 line diagrams, 76 halftones, 14 color plates, 16 tables, \$175.00.

Intervening in the Brain—Changing Psyche and Society Series: Ethics of Science and Technology Assessment, Vol. 2. R. Merkel, G. Boer, J. Fegert, T. Galert, D. Hartmann, B. Nuttin, S. Rosahl, eds. New York: Springer; 2007, 533 pages, 11 illustrations, \$99.00.

Tumors of the Brain and Spine Series: M.D. Anderson Cancer Care Series. F. DeMonte, M.R. Gilbert, A. Mahajan, I.E. McCutcheon, eds. New York: Springer; 2007, 364 pages, 87 illustrations, \$89.95.

Patch-Clamp Analysis: Advanced Techniques, 2nd ed. W. Walz, ed. Totowa, NJ: Humana Press; 2007, 424 pages, \$125.00.

Radiobiological Modelling in Radiation Oncology. R. Dale, B. Jones, eds. London: British Institute of Radiology; 2007, 292 pages, \$120.00.

Erratum

Please note that October article "Early Postnatal Development of Corpus Callosum and Corticospinal White Matter Assessed with Quantitative Tractography" by Gilmore et al (2007;28:1789–95) printed with incorrect DOI number 10.3174/ajnr.A0651. The correct DOI number is 10.3174/ajnr.A0751. This error has been corrected for the on-line version of the article.

DOI 10.3174/ajnr.A0868