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BOOK REVIEW

Radiotherapy for Non-Malignant Disorders

M.H. Seegenschmiedt, H.B. Makoski, K.R. Trott, and L.W. Brady, eds. New York: Springer; 2008, 743 pages, 364 illustrations, $269.00.

The chapter in the textbook entitled *Radiotherapy for Non-Malignant Disorders* that covers the treatment of nonmalignant central nervous system (CNS) disorders by using ionizing radiation is a well-written, concise, and organized accounting of the current state of the art for physicians and residents in neurosurgery, neurology, neuro-oncology, medical physics, and radiation oncology. The types of disease entities covered include the following: arteriovenous malformation, meningioma, vestibular schwannoma (acoustic neuroma), pituitary adenoma, trigeminal neuralgia, and epileptic disorders. Each section includes a brief overview of the natural history of the disease itself, including clinical, radiographic, and pathologic manifestations and methods of diagnostic investigations. Nonradiotherapeutic techniques and those using ionizing radiation for disease management are well delineated. The discussion of the various types of radiation therapy within each section includes an overview of principles of radiation biology, such as the effects of ionizing radiation on various normal and abnormal cells and tissues in the brain.

There is much concentration in this chapter on the use of radiosurgery, both gamma knife (Elekta, Norcross, Ga) and linear accelerator–based systems, for the treatment of these nonmalignant CNS disorders. In particular, appropriate radiation treatment planning relies heavily on the use of MR imaging as the mainstay. Moreover, representative examples of these MR images are incorporated into the text to aid in the understanding of the nondiagnostic radiologist reader. Also, the use of fractionated external beam irradiation (including intensity modulated radiation therapy) is presented in the chapter along with a discussion of proton beam therapy for these diseases, when appropriate.

Furthermore, each section summarizes published as well as institutional treatment policies and results for each disease of interest as well as data on the toxicities of therapeutic ionizing radiation. Finally, each section within the chapter closes with a special "Bullet Points" review for the reader, to emphasize further the salient features with respect to each disease. Thus, this chapter on the management of CNS nonmalignant conditions with radiation therapy is an excellent reference guide for any clinical member of the treatment team for these diseases.

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