The second edition of *Neurologic Complications of Cancer* is an extensively updated and revised version of the 1995 text authored by Jerome B. Posner. The chapters detailing the pathophysiology and treatment of central nervous system (CNS) and peripheral nervous system (PNS) metastasis and the neurologic complications of cancer treatment are the most extensively revised. As in the original, there are three main sections, the first of which is an overview of the general principles of neuro-oncology, including a classification of neuro-oncologic disorders and an approach to the evaluation of the patient with a proven or suspected neuro-oncologic disorder.

Chapter 2, Pathophysiology of Nervous System Metastases, is updated and revised to reflect the recent and ongoing exploration of the mechanisms of metastasis to the CNS and PNS. This detailed review of laboratory and clinical features of nervous system metastasis is important because of the increasing recognition that certain tumors have a high propensity to spread to the CNS, whether it be due to an inherent property of the cancer (“seed hypothesis”) or of the nervous system tissue, which provides the substrate to attract and allow attachment and growth of the cancer (“soil hypothesis”). In Chapter 3, the anatomy and physiology of the blood-brain and blood-cerebrospinal fluid barriers are outlined, with detailed information regarding drug delivery across the barriers. Disruption of the blood-brain barrier, with resulting vasogenic edema, is a common complication of brain metastasis, and attention is focused on the variety of clinical symptoms and signs by which vasogenic edema presents and on the management of this consequence. The last chapter of this section provides useful information on symptom management, as well as valuable information on drug interactions, including antimicrobials and chemotherapy. Of particular value to the non-neurologist is a detailed approach to the management of seizures, including status epilepticus, in the cancer patient.

The second section details the clinical aspects of metastasis to the CNS and PNS. Each subsection includes an overview of the frequency, pathophysiology, pathology, clinical and laboratory findings, differential diagnosis, treatment, and prognosis for that site. As a measure of the comprehensiveness of this volume, the symptoms and signs of metastasis to each cranial nerve are described separately. In addition, specific recommendations are provided according to tumor type. Since 1995, there have been advances in therapeutic options for parenchymal brain metastasis, and Chapter 5 has been extensively updated to include treatment results from recent controlled clinical trials as well as to highlight therapeutic controversies that exist, for example the role of combined stereotactic radiosurgery (SRS) and whole-brain radiation therapy (WBRT). Recent clinical trials of radiosensitizing agents with WBRT are also reported, as well as the results of systemic chemotherapy and the renewed use of prophylactic cranial irradiation in lung cancer. In ensuing chapters, updates on the management of epidural spinal cord compression and leptomeningeal metastases are provided. These include the results of recent clinical trials, which have refined the role of surgery and radiation therapy for cord compression. The recent treatment advance of SRS for vertebral metastasis is also detailed. There is inclusion of very recent information pertaining to the variety of drugs available for intrathecal administration to treat leptomeningeal metastasis.

The third section reviews the nonmetastatic complications of cancer, including those directly or indirectly related to the treatment administered for cancer, and paraneoplastic syndromes. The neurologic toxicity of chemotherapy is reviewed in detail and is subdivided by neurologic signs. In addition, the systemic antineoplastic agents are organized by their mechanism of action. This chapter includes drugs recently introduced into clinical practice, such as monoclonal antibodies targeting growth factors. For chemotherapy– and brain radiation–related toxicities, the neurologic syndromes are characterized specific to the time interval from treatment. In addition, detailed information of the antimicrobial treatment of common CNS pathogens in cancer patients is provided.

The last chapter is a detailed description of CNS and PNS paraneoplastic syndromes. Much of the original

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clinical and laboratory research in these disorders was performed by Dr. Posner, and the clinical, imaging, and pathologic correlations are exceptionally comprehensive. Several tables assist the reader in correlating the neurologic syndromes with antibody markers. Treatment recommendations, specific to each paraneoplastic disorder, are provided.

Several aspects of this text are unique and provide strong endorsements for its use. The coauthors are respected clinicians in the field of neuro-oncology and each has vast experience in the evaluation and management of neuro-oncology disorders. In addition, much of the clinical and laboratory data presented was obtained and published under their auspices at Memorial Sloan-Kettering Cancer Center. A potential bias of this authorship would be that personal opinions and recommendations prevail. However, this is not the case. The authors present a balanced view of the conditions and highlight controversies where they exist, extensively citing references published from a variety of oncology disciplines that were authored in the United States or abroad. The advantage of dual authorship, rather than a multiauthored text, is a uniformity of style and presentation, which makes this text very readable.

While the focus of the text is largely clinical, there is considerable attention to the pathophysiology of each neuro-oncology disorder. It is a difficult task to present material in an encyclopedic fashion and yet be practical enough that the material can be used to address a clinical situation at hand, that is be a succinct “how to” in diagnosis and treatment. Yet the book succeeds admirably in this respect. Many neurologic complications of cancer can present in a similar fashion (for example, encephalopathy can be the manifestation of a wide range of neuro-oncologic disorders) and the approaches to the clinical diagnosis are well defined and outlined, often in a flow diagram. Because there is inevitably overlap of some subjects, a reference to appropriate text within another chapter is also inserted in the diagrams, texts, or tables.

The references are appended to each chapter. They are current, including a number of articles in press. Artistic illustrations of high quality supplement the text. There are many biopsy or postmortem pathology figures of high quality, most of which are original, and many are in color. The pathology figures often accompany images, typically MRI and PET scans, which are of high resolution. Electrodagnostic tracings are included within the peripheral nerve sections.

This is a superb book. It is highly recommended for any clinician involved in the care of cancer patients. This includes specialists in the clinical neurosciences, such as neurologists and neurosurgeons, but certainly medical and radiation oncologists as well. Internists, intensivists, and other medical specialists who evaluate and treat cancer patients will also benefit. It is also a useful text for house staff in the neurology and oncology disciplines because of its lucidity. For those involved in neuro-oncology clinical research, the scope of the material presented may suggest areas for future research.

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