

## Preface

# Peripheral nerve tumors: diagnosis and management



Eric L. Zager, MD



Jason H. Huang, MD

*Guest Editors*

In this issue of the *Neurosurgery Clinics of North America*, we examine the problem of peripheral nerve tumors from the perspective of the practicing clinician, particularly the neurosurgeon. Peripheral nerve tumors are uncommon lesions with a widely varying pathology. The neurosurgeon is often consulted about a mass lesion that has presented with symptoms related to the involved peripheral nerve or nerves. It is important that the practitioner recognize the features of peripheral nerve tumors in the patient's history and physical examination so that the appropriate diagnostic studies are ordered. The clinician should then be capable of discussing the range of differential diagnostic possibilities and advising the patient of the ideal interventional strategy. These tumors can present very challenging management dilemmas in which sound judgment and experience play a crucial role. At times, simple observation is the best initial strategy. If surgery is recommended, it should be performed by an experienced peripheral nerve specialist who has access to intraoperative electrophysiologic monitoring. Well-meaning attempts at tumor biopsy or lymph node resection can result in debilitating nerve injuries.

The contributors included in this issue comprise some of the leading authorities in the field. Most are practicing neurosurgeons who specialize

in peripheral nerve surgery. We begin with an overview of the history of peripheral nerve surgery by Drs. Little, Zomorodi, Selznick, and Friedman. Next, Drs. Ramcharan and Midha detail the proper evaluation of the patient, including clinical presentation and physical examination. Dr. Maniker then describes the range of diagnostic studies—including imaging and electrophysiology—that are necessary for thorough preoperative evaluation of these lesions. Dr. Brooks, a geneticist, then describes the neurofibromatoses, which comprise an important hereditary group that predisposes patients to peripheral nerve tumors. Drs. Skovronsky and Oberholtzer are neuropathologists who summarize the varying pathology of these tumors. The remainder of the issue is devoted to neurosurgical approaches and techniques as described by experienced peripheral nerve surgeons. Drs. Tiel and Kline, followed by Drs. Kim, Murovic, Tiel, and Kline in a subsequent article, present the largest clinical series of peripheral nerve tumors from the Louisiana State University Health Sciences Center in New Orleans, including surgical approaches, techniques, and outcomes with long-term follow-up. Dr. Spinner then presents his clinical pearls for avoiding complications in the overall management of these patients. Drs. Perrin and Guha discuss the challenging problem of malignant peripheral nerve

sheath tumors. Drs. Belzberg and Dorsi present their management experience of paraspinal nerve sheath tumors, followed by a chapter from Drs. Golan and Jacques on an interesting group of nonneoplastic masses involving peripheral nerves. Drs. Schwarz and Naff deal with the difficult problem of neuropathic pain. The issue finishes with a presentation of a variety of actual clinical cases for illustration and discussion.

We are hopeful that this issue will help familiarize more clinicians with these unusual lesions. Patients who present with peripheral nerve tumors

deserve the best evaluation and sound clinical management that we can provide.

Eric L. Zager, MD  
Jason H. Huang, MD  
*Department of Neurosurgery  
University of Pennsylvania  
Medical Center  
3400 Spruce Street  
Philadelphia, PA 19104*

*E-mail addresses:* [eric.zager@uphs.upenn.edu](mailto:eric.zager@uphs.upenn.edu)  
[jason.huang@uphs.upenn.edu](mailto:jason.huang@uphs.upenn.edu)