Cutaneous Neural Neoplasms
This work is dedicated to the memory of my father.

—ZA

This work is dedicated to Shawna for your support, patience and strength.

—CHJ
Preface

Cutaneous neuropathology seems a small and esoteric field within the extensive domain of dermatopathology. Paradoxically, tumors of this category include some of the most vexing problems that dermatopathologists encounter in their daily practice. Since peripheral neural tumors are soft tissue tumors, they are studied and diagnosed by general pathologists or by soft tissue specialists. However, many neural tumors that occur in the skin or in superficial soft tissues are first seen by dermatologists or by dermatopathologists, who may not be familiar with the fine details of relevant neuropathology. Because of this division of diagnostic histopathology, cutaneous neuropathology became somewhat of a “no man’s land.” Present monograph intends to fill this gap in diagnostic dermatopathology. It is a practical guide with abundant illustrations of variants of common cutaneous neural neoplasms. Like any field of medicine, cutaneous neuropathology is ever evolving; therefore, changes in nomenclature and classification can be expected. For practical reasons we have used the current terminology and accepted classification with the understanding that the definition of some entities may change.

Regardless of the most recent concepts of pathogenesis, every skin lesion should be classified for the ultimate purpose of diagnostic pathology, namely for better treatment of the patient. In this book the discussion of entities is based on the knowledge of normal histology and familiarity with histogenetic considerations. Naturally, the evidence-based diagnosis should be supported by consistent use of ancillary diagnostic tools.

The reader will find in this book ample drawings, 3D schematic illustrations, flowcharts, and tables beside traditional microphotographs. Numerous immunohistochemical illustrations should assist to solve the diagnostic problem at hand. The key clinical and histological findings have been concisely described, but the main emphasis is on helpful illustrations. The reader is encouraged to follow a conceptual approach to these tumors, i.e., first to understand the definition of an entity and then to correlate the histologic findings with the postulated histogenesis. Although many of these histogenetic ideas remain putative, they can guide in the analysis of characteristic morphologic appearance and help in the formulation of diagnostic criteria.

Finally, the reader may be interested in the history of this book. The idea was conceived about 20 years ago when the senior author (ZA) became interested in cutaneous neural tumors and recognized the lack of a pertinent
monograph. This intention was strongly encouraged and supported by Bernard Ackerman, a prominent leader and contributor in the field of dermatopathology. Almost simultaneously, the senior author also had the honor to learn from Richard Reed, a general pathologist with vast experience in dermatopathology and a pioneer in cutaneous neuropathology, and thanks to his generosity, the senior author had the opportunity to collaborate with him on several book chapters. Although the present book was conceived in its basic form 20 years ago, due to ever-increasing professional commitments it had to remain on the back burner. Nevertheless, this field remained in the focus of the author’s interest. During the past years he had reviewed in consultation an extraordinary number of unusual neural tumors, which greatly contributed to his understanding. As a result, this book has benefited from the accumulated knowledge during this period.

A major impetus for the completion of this monograph came from my former and talented dermatopathology fellow, Chris Jokinen, who expressed interest in this area. Stimulated by his enthusiasm and with his dedicated help this book has finally materialized. The authors firmly believe that the recent trend in molecular biology will further expand our understanding of cutaneous neural tumors; therefore, certain reclassification will be inevitable. While we will make efforts to include these changes in a future edition, we are confident that the reader will find the time-honored approach in this book useful in daily diagnostic work.

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1 The Peripheral Nerve and Cutaneous Neural Tumors:
Introduction, Definitions, and Classification .................. 1
Additional Reading .......................................................... 6

2 Special Techniques for the Study
of Cutaneous Neural Tumors ........................................... 7
Additional Reading .......................................................... 14

3 Nonneoplastic and Hamartomatous Lesions
of the Cutaneous Peripheral Nerve ............................... 15
Palisaded Encapsulated Neuroma .................................... 15
  Definition, Classification, and Histogenesis .................. 15
  Clinical Findings .......................................................... 15
  Histopathology ........................................................... 15
  Differential Diagnosis .................................................. 21
Mucosal (Mucocutaneous) Neuroma ............................. 21
  Definition, Classification, and Histogenesis ................. 21
  Clinical ....................................................................... 21
  Histopathology ........................................................... 22
  Differential Diagnosis .................................................. 25
Fibrolipomatous Hamartoma .......................................... 25
  Definition, Classification, and Histogenesis ................. 25
  Clinical ....................................................................... 26
  Histopathology ........................................................... 26
  Differential Diagnosis .................................................. 26
Traumatic Neuroma ..................................................... 26
  Definition, Classification, and Histogenesis ................. 26
  Clinical ....................................................................... 26
  Histopathology ........................................................... 28
  Differential Diagnosis .................................................. 28
Morton’s Neuroma (Interdigital Neuritis) ......................... 31
  Definition, Classification, and Histogenesis ................. 31
  Clinical ....................................................................... 31
  Histopathology ........................................................... 31
  Differential Diagnosis .................................................. 31
Reparative Perineurial Hyperplasia ................................................. 33
Definition, Classification, and Histogenesis................................. 33
Clinical .......................................................................................... 33
Histopathology ............................................................................... 33
Differential Diagnosis .................................................................... 33
Epithelial Sheath Neuroma ............................................................... 33
Definition, Classification, and Histogenesis................................. 33
Clinical .......................................................................................... 33
Histopathology ............................................................................... 34
Differential Diagnosis .................................................................... 34
Additional Reading ........................................................................ 35
Palisaded Encapsulated Neuroma .................................................. 35
Mucosal Neuroma ........................................................................... 35
Fibrolipomatous Hamartoma of Nerve ......................................... 36
Reparative Perineurial Hyperplasia .................................................. 36
Epithelial Sheath Neuroma ............................................................... 36

4 Benign Cutaneous Neoplasms with Peripheral
Nerve Differentiation ..................................................................... 37
Neurofibroma ................................................................................... 37
Definition, Classification, and Histogenesis................................. 37
Clinical Findings ............................................................................ 37
Histopathology ............................................................................... 37
Differential Diagnosis .................................................................... 50
Schwannoma .................................................................................... 52
Definition, Classification, and Histogenesis................................. 52
Clinical .......................................................................................... 53
Histopathology ............................................................................... 53
Differential Diagnosis .................................................................... 68
Granular Cell Tumor ......................................................................... 68
Definition, Classification, and Histogenesis................................. 68
Clinical .......................................................................................... 68
Histopathology ............................................................................... 68
Differential Diagnosis .................................................................... 70
Nerve Sheath Myxoma ..................................................................... 71
Definition, Classification, and Histogenesis................................. 71
Clinical .......................................................................................... 71
Histopathology ............................................................................... 72
Differential Diagnosis .................................................................... 74
Perineurioma .................................................................................... 76
Definition, Classification, and Histogenesis................................. 76
Clinical .......................................................................................... 76
Histopathology ............................................................................... 76
Differential Diagnosis .................................................................... 81
Lipoblastic Nerve Sheath Tumors...................................................... 81
Additional Reading ........................................................................ 81
Neurofibroma ................................................................................... 81
Schwannoma ..................................................................................... 82
Granular Cell Tumor ................................................................. 82
Nerve Sheath Myxoma .............................................................. 82
Perineurioma ............................................................................. 82
Lipoblastic Nerve Sheath Tumors ............................................. 82

5 Malignant Cutaneous Neoplasms with Peripheral Nerve Differentiation ........................................... 83
Malignant Peripheral Nerve Sheath Tumor ............................... 83
Definition, Classification, and Histogenesis ......................... 83
Clinical Findings ..................................................................... 83
Histopathology ........................................................................ 83
Differential Diagnosis ............................................................ 90
Malignant Granular Cell Tumor ................................................. 90
Definition, Classification, and Histogenesis ......................... 90
Clinical ...................................................................................... 90
Histopathology ........................................................................ 90
Differential Diagnosis ............................................................ 90

6 Cutaneous Proliferations with Putative Neural Differentiation ............................................................ 93
Neurothekeoma ........................................................................ 93
Definition, Classification, and Histogenesis ......................... 93
Clinical Findings ..................................................................... 93
Histopathology ........................................................................ 93
Differential Diagnosis ............................................................ 101
Primary Cutaneous Neuroendocrine Carcinoma (Merkel Cell Carcinoma) ................................................. 103
Definition, Classification, and Histogenesis ......................... 103
Clinical ...................................................................................... 103
Histopathology ........................................................................ 104
Differential Diagnosis ............................................................ 108
Neurofollicular Hamartoma .................................................... 109
Definition, Classification, and Histogenesis ......................... 109
Clinical ...................................................................................... 109
Histopathology ........................................................................ 109
Differential Diagnosis ............................................................ 109

7 Cutaneous Neuroblastic and Ganglion Cell Proliferations ................................................................. 113
Neuroblastoma ......................................................................... 113
Definition, Classification, and Histogenesis ......................... 113
Clinical Findings ..................................................................... 113
Histologic Features ................................................................. 113
Differential Diagnosis ............................................................ 115
Ganglioneuroma
Definition, Classification, and Histogenesis ........................................ 115
Clinical ......................................................................................... 115
Histopathology ........................................................................... 115
Differential Diagnosis .................................................................. 118
Ganglion Cell Choristoma
Definition, Classification, and Histogenesis .................................... 118
Clinical ......................................................................................... 118
Histopathology ........................................................................... 118
Differential Diagnosis .................................................................. 118
Additional Reading ........................................................................ 118
8 Cutaneous Glial and Meningothelial Proliferations ......................... 119
Nasal Glioma (Heterotopic Glial Tissue)
Definition, Classification, and Histogenesis ......................................... 119
Clinical Findings ........................................................................ 119
Histopathology ........................................................................... 119
Differential Diagnosis .................................................................. 120
Cutaneous Meningioma
Definition, Classification, and Histogenesis ......................................... 121
Clinical ......................................................................................... 121
Histopathology ........................................................................... 122
Differential Diagnosis .................................................................. 123
Meningocele
Definition, Classification, and Histogenesis ......................................... 123
Clinical ......................................................................................... 124
Histopathology ........................................................................... 124
Differential Diagnosis .................................................................. 126
Additional Reading ........................................................................ 126
Cutaneous Meningioma ................................................................. 126
Appendix: Practical Approach to Neural Tumors –
Flowcharts and Differential Diagnostic Tables .................................. 127
Index ............................................................................................. 133