

Preface

Multiple Sclerosis: Etiology, Diagnosis, and New Treatment Strategies synthesizes current concepts about the evaluation, treatment, and future directions in multiple sclerosis (MS). In addition to discussing the current medications for treating relapsing-remitting MS (Avonex, Betaseron, Copaxone), this book focuses on recently approved medications (Novantrone and Rebif), new indications for medications (CHAMPS Trial), and medications in development (Oral Interferon Tau, Oral Copaxone, Oral Cellcept). Immunosuppressive therapy for progressive disease as well as symptomatic therapy is also discussed.

The evaluation of MS has been greatly enhanced by magnetic resonance imaging (MRI) and newer imaging techniques, such as magnetic resonance spectroscopy, functional MRI, and three-dimensional MRI, which was pioneered at Harvard University. These modalities have also aided in clinical trials leading to the first Food and Drug Administration approved medication to treat MS. The role of MRI is reviewed in Chapter 3.

The role of immunological research in MS is paramount. Special attention is given to the immunological mechanisms involved in the autoimmune process and in developing treatment strategies based on these concepts. We present the current thinking and latest discoveries in immunology as it relates to MS. Groundbreaking B-cell research has been pioneered at the University of California, Irvine. The basic understanding of the autoimmune mechanism and its application to specific immunotherapies is explored in Chapters 5 and 6. Immune markers are crucial for understanding and following the disease and are covered in detail.

Multiple Sclerosis: Etiology, Diagnosis, and New Treatment Strategies provides insight into the future of MS treatment. The mechanism and application of myelin repair is presented in detail in Chapter 11. Future therapies such as bone marrow transplant, combination therapy, and specific immunomodulatory treatment are discussed in Chapter 12. These therapies are based largely on basic immunologic research.

This book should prove valuable to general neurologists and primary care physicians who treat many patients with MS. We hope they find it useful.

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