Early Indicators Early Treatments Neuroprotection in Multiple Sclerosis

There is now evidence that irreversible brain damage accumulates very early in the course of multiple sclerosis. This indicates the need for early intervention, especially in the management of complicating signs and symptoms, and early neuroprotection. There is, however, a need to develop a treatment that is neuroprotective, one that slows the pathology of the disease effectively.

Exercise and light therapies are similar in that they are non-invasive and safe to use, with no known adverse side-effects. They each have been shown to offer the key feature of neuroprotection, stimulating a series of built-in protective mechanisms of the body tissues. The two therapies are tied together in several ways. First, in animal models of Parkinson’s disease, these findings express the importance of the milieu changes induced by inflammatory process in limiting remyelination. Further, both exercise and light therapies may be followed by recovery phases in such a way that myelin may be morphologically and functionally reconstituted. This all brings the rationale of early treatments and the results of clinical trials in MS to the fore as one of the most important questions today.

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Neuroprotective Agents and Cerebral Ischaemia - 1996-11-26
Since 1959, International Review of Neurology has been a well-known series appealing to neuroscientists, clinicians, psychologists, and psychopharmacologists. This important series is now being combined with Neuroscience Perspectives and Methods in Neurosciences. This combination results in a series that matches a wide range of topics and aims at the medical reader interested in the neuroscientific bases of cognitive decline. Stroke is the third major cause of death in the western world, and recent data provide hope that treatments may soon be available. Written by world experts on the mechanisms involved in neurodegeneration, Neuroprotective Agents and Cerebral Ischaemia presents an up-to-date review of the cellular and molecular properties that can be targeted by neuroprotective drugs and allows researchers searching for neuroprotective drugs. Describes the mechanisms involved in cell death and the biochemical changes occurring during an ischaemic episode; Presents the different factors that affect the outcome of cerebral ischaemia, and identifies both opportunities for research and targets for future drugs. Neuroprotective Agents and Cerebral Ischaemia reviews in vitro and in vivo models of stroke and the activity of putative neuroprotective drugs. Discusses the assessment of the application of preclinical data to formulate approaches to a clinical problem. Provides detailed reviews of both completed clinical trials and those currently underway.

Symptoms of Parkinson's Disease - Md, Frp, Frcp (hon), Abdul Qayyum Rana - 2011-09-22
The symptoms are divided into four main categories: motor symptoms, which are the most disabling and recognition of the age-related processes is essential. The importance of understanding the motor symptoms - rigidity, tremor, bradykinesia, and postural instability - is increasingly recognized, both in terms of the treatment of the disease and in the development of novel drug therapies. The book includes chapters in which the authors present and discuss the findings from basic studies of neurodegenerative mechanisms. These mechanisms have implications not only for neurodegenerative disorders, but also for schizophrenia, mood and cognitive disorders. The purpose of this book is to provide an up-to-date overview of relevant aspects of cognitive decline and related conditions you will see in your ever-changing patient population. Comprehensive coverage of neurological disorders, psychiatric conditions, and several compounds with potential neuroprotective actions. Describes the mechanisms involved in cell death and the biochemical changes occurring during an ischaemic episode; Provides a broad perspective of the cellular and molecular properties that can be targeted by neuroprotective drugs and allows researchers searching for neuroprotective drugs.

Movement Disorders are a group of neurological conditions that cause problems with movement - either too much, too little or in the wrong place and at the wrong time. The treatment is complex, but does work, and there has been much recent exciting developments in the field. This book aims to help neurologists and other doctors and researchers engaged in the treatment and research of movement disorders. Particular attention is paid to the dietary micro- and macronutrients and to their role in the pathogenesis of Huntington disease. The volume includes all major areas of Huntington disease clinical care and research, whereas many other HD texts focus solely on neurological symptoms. This book also addresses behavioral and psychological symptoms, and their impact on caregivers and family. Although most of the important motor and non-motor symptoms of Parkinson’s disease have been discussed in this book, the authors, all experienced clinicians and researchers from multi-professional backgrounds, demonstrate how movement disorders influence your patients’ lives well beyond the motor symptoms. Moreover, this book provides in depth information to enhance communication and collaboration. This volume in the Handbook of Clinical Neurology series is that resource. Includes coverage of both basic science and clinical aspects of the disease as treatment, and provides an international perspective, with contributions from neurologists, psychiatrists, neuro-psychologists, and other health professionals. This book discusses the role of genetic epidemiology, molecular genetics, and genomics in Huntington disease, and provides an overview of all major areas of Huntington disease research and clinical care. The book also focuses on ethical issues and psychological and psychiatric conditions you will see in your ever-changing patient population. Comprehensive coverage of neurological disorders, psychiatric conditions, and several compounds with potential neuroprotective actions.
Neuropharmacology of Neuroprotection Volume 254, the latest release in the Progress in Brain Research series, highlights new advances in the field, with this new volume presenting interesting chapters. Each chapter is written by an international board of authors. Provides the authority and expertise of leading contributors from an international board of authors. Presents the latest release in the Progress in Brain Research series. Updated release includes the latest information on Neuropharmacology of Neuroprotection.

Molecular Aspects of Neurodegeneration and Neuroprotection - Akhlaq A. Farooqi - 2011-01-26

"Neurodegenerative diseases are a complex heterogeneous group of diseases associated with site-specific premature and slow death of certain neuronal populations in brain and spinal cord tissues. For example, in Alzheimer disease, neuronal degeneration occurs."

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Mechanisms in Parkinson's Disease - Juliana Daunero - 2012-02-08

Parkinson's disease (PD) results primarily from the death of dopaminergic neurons in the substantia nigra. Current PD medications treat symptoms; none halt or retard dopaminergic neuron degeneration. The main obstacle to developing neuroprotective therapies is a limited understanding of the key molecular mechanisms that precipitate neurodegeneration. The discovery of PD genes has led to the hypothesis that misfolding of proteins and dysfunction of the ubiquitin-proteasome pathway are pivotal to PD pathogenesis. Previously implicated culprits in PD neurodegeneration, mitochondrial dysfunction, and amyloidosis also play a role in PD pathogenesis. Currently, idiopathic dopaminergic neurodegeneration, in addition to producing other deleterious events in dopaminergic neurons. Neurotransmitter-based models have been important in elucidating the molecular cascade of cell death in dopaminergic neurons. PD models based on the manipulation of PD genes should prove valuable in elucidating important aspects of the disease, such as selective vulnerability of substantia nigra dopaminergic neurons to the degenerative process.

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Textbook of Interventional Cardiology - Eric J. Topol - 2015-03-30

Ideal for cardiologists, surgeons, and referring physicians who need a clinical guide to interventional procedures. Textbook of Interventional Cardiology focuses on the latest treatment protocols for managing heart diseases at every level of complexity. In this updated edition, Dr. Topol continues to bring together experts in the field who provide cutting-edge therapies, trends, and applications of diagnostic and interventional cardiology, as well as peripheral vascular techniques, and practices. Offers an in-depth understanding of cardiology, making it well suited for cardiology and interventional cardiology examination preparation. Expert guidance from leading authorities ensures a fresh and balanced perspective on every aspect of interventional cardiology. Presents the most recent genetic information and clinical trials related to interventional cardiology. Highlights the latest treatment advances, procedures, devices, and techniques, including transcatheter aortic valve implantation (TAVI). Brand-new chapters include Radiation Safety, Renal Denervation for Resistant Hypertension, Post PCI Hospitalization, Length of Stay and Discharge Planning, and Interventional Heart Failure. Offers balanced coverage of the entire scope of technologies available, without favoring one particular device over another. Integrates the latest trial data into discussions of clinical practice and provides a comprehensive overview of the latest scientific theories, trends, and applications of diagnostic and interventional cardiology, as well as peripheral vascular techniques, and practices. Includes new and expanded content on movement disorders, genetic and immunologic disorders, tropical neurology, neuro-ophthalmology and neuro-otology, palliative care, pediatric neurology, and new and emerging therapies. Offers even more detailed videos that depict how neurologic disorders manifest, including EEG and seizures, deep brain stimulation for PD and tremor, sleep disorders, movement disorders, ocular disorders, EMG evaluation, cranial neuropathies, and disorders of upper and lower motor neurons, as well as other neurologic signs.

Bradley's Neurology in Clinical Practice E-Book - Joseph Jankovic - 2021-03-23

A practical, dynamic resource for practicing neurologists, clinicians and trainees, Bradley and Daroff's Neurology in Clinical Practice, Eighth Edition, offers a straightforward style, evidence-based information, and robust interactive content supported by treatment algorithms and images to keep you up to date with all that's current in this fast-changing field. Your practice is at the forefront of daily reference, featuring a unique organization by presenting symptom/sign and by specific disease entities—allowing you to access content in ways that mirror how you practice. More than 150 expert contributors, led by Drs. Joseph Jankovic, John C. Mazzotta, Scott L. Ponseny, and Nancy J. Newman, provide up-to-date guidance that equips you to effectively diagnose and manage the full range of neurological disorders. Covers all aspects of today's neurology in an easy-to-read, clinically relevant manner. Allows for easy searches through the organization by both symptom and grouping of diseases. Features new and expanded content on movement disorders, genetic and immunologic disorders, tropical neurology, neuro-ophthalmology and neuro-otology, palliative care, pediatric neurology, and new and emerging therapies. Offers even more detailed videos that depict how neurologic disorders manifest, including EEG and seizures, deep brain stimulation for PD and tremor, sleep disorders, movement disorders, ocular disorders, EMG evaluation, cranial neuropathies, and disorders of upper and lower motor neurons, as well as other neurologic signs.

Myelin Repair and Neuroprotection in Multiple Sclerosis - Ian D. Duncan - 2012-08-31

Myelination Repair and Neuroprotection in Multiple Sclerosis presents an up-to-date on the translational potential of promoting remyelination in multiple sclerosis (MS). A number of research frontiers still exist in this challenging disease. The cause remains elusive, preventing breakthroughs in its prevention. The move towards oral immunomodulatory therapies has been a major advance, as has the finding of new genes linked to susceptibility that may open the door to new therapeutic approaches. However, a frontier that has been making significant strides in recent years has been that surrounding the neurobiology of myelin regeneration and axon protection such have been the advances that clinical translation is on the cusp of being achieved. Two broad approaches to this challenge: reparative remyelination and axon regeneration. The current status of each of the three key cellular events present in the CNS, or, replacing lost myelinating cells from exogenous sources. Current research on oligodendrocyte biology, the pathological MS, mapping of the biology of remyelination are paving the way toward opening this new translational frontier. Professor Duncan and Professor Franklin have assembled a broad group of experts in the fields of glial cell biology, neuroimmunology, radiology and clinical neurology to provide the background to the remyelination from experimental models into MS patients.

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