

BOOK REVIEW

Neurotrauma and critical care of the spine

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This book precisely describes the latest information regarding traumatic spinal cord injury (SCI). It covers almost the entire field of SCI from the basic science to day-to-day clinical practice, and presents a comprehensive and multi-disciplinary approach for the treatment of acute and chronic SCI. It will be of great help to spine care providers to optimize care for those with SCI. This book consists of four chapters, each chapter containing a large number of high-quality illustrations and concise summaries of key information.

The introductory Chapter 1 describes the epidemiology of spinal injuries and explains the incidence of SCI in developed countries, etiology, common sites of neurologic injury, deficit severity, concomitant injuries in other important organs, medical costs and prevention strategies. This chapter helps the reader to grasp the outline of SCI.

Chapter 2 describes SCI from a scientific point of view. It explains the pathophysiology of spinal injuries, classification systems, imaging studies of SCI, biomechanics of the spine and spinal trauma. This chapter also provides the latest information concerning concepts and developments in spinal cord regeneration therapy. As spinal cord regeneration therapy is now of great clinical interest, this chapter is extremely helpful for understanding the latest scientific advancements regarding tissue regeneration strategies for SCI.

Chapter 3 describes detailed clinical management of SCI from different points of view. This chapter describes pre-hospital management of acute SCI, timing of spine surgery, management of frequent spinal injuries, such as cervical and

thoracolumbar injuries and critical care of acute SCI. Precise methods of how to manage ventilation support, pneumonia, thromboembolic complications, hemodynamic problems, gastrointestinal and urologic problems are explained in this chapter. This chapter also describes SCI of athletes engaged in various sports activities.

Chapter 4 starts with detailed explanations of the uniqueness of pediatric spinal injuries in association with the natural development of the human spine. This chapter also explains rehabilitation programs and recovery processes from paralytic conditions to normal social life. Psychological issues in patients with acute SCI are discussed in detail using the '4Ds': depression, dependency, drug addiction and divorce. Medical costs both in the acute phase of SCI and estimated lifetime medical costs for SCI patients are presented. As SCI is one of the most challenging topics in recent scientific or clinical research, both spine care providers and basic scientists need to be familiar with ethical issues in any research studies of SCI. The final chapter also provides an excellent overview of research ethics that every researcher must follow in developing innovative therapy.

While reading this book, I am sure that every reader will not only acquire abundant new practical information, but also recognize the existence of unsolved problems in the treatment of SCI. I believe that this book can be a bible for all spine care providers, such as neurosurgeons, orthopedic surgeons, emergency specialist, nurses and residents. This book is worth buying and reading.

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