

Book Reviews

Acute Stroke Treatment, Julien Bogousslavsky (Ed.), Martin Dunitz Ltd., London UK 1997

This is a very timely book of 17 chapters written by leading world experts of a particularly dynamic field of restorative neurology, that is, the emerging treatment of acute stroke. Stroke is still the third leading cause of death and the main cause of permanent disability in the industrialized world. Its incidence (but not mortality) is again increasing in many countries. The book illustrates that the former nihilism in (not) treating stroke is in a fast retreat. On 300 pages the book covers the main clinical and neuroscience aspects of stroke treatment. Clinical chapters describe the diversity of stroke management around the world (authors: Davis, Rosen and Donnan), the principles of neurological assessment of ischemic stroke location and size, the common clinical-topographic subtype classifications and current stroke scoring systems (Bogousslavsky and Castillo). Krieger and Hacke outline current concepts of intensive care stroke treatment, including their own experience with novel approaches such as open intraparenchymal monitoring and decompressive surgery. Diagnostic chapters cover extra- and intracranial cerebrovascular ultrasound for fast bedside-assessment of vascular occlusion or stenosis (Hennerici and Meairs), the cardiac workup in the acute phase (Devuyst and Bogousslavsky), and the very rapidly developing techniques of anatomic and functional brain imaging (written by Welch et al.). Here, diffusion-weighted magnetic resonance imaging has become a particularly promising approach that will hopefully allow the quantitative and early assessment of the amount of brain tissue at risk and/or salvagable by treatment. Most of the chapters include primary literature sources until 1996. In two of several experimental chapters, Sacco, Silver and Fisher outline the old, new and future attempts to increase the ischemic tolerance of brain tissue by neuroprotection, e.g., hypothermia, ion channel blockers, free radical scavengers, leucocyte anti-adhesion molecules, apoptosis inhibi-

tors, trophic factors, etc. Unfortunately, many of these strategies have been very successful in experimental settings, but failed in recent clinical studies in humans. Dalkara and Moskowitz focus on their exciting data about the importance of nitric oxide in stroke evolution, and Akiyama and Hakim discuss possible perspectives of gene therapy. Primary hemorrhagic stroke is covered in two other excellent clinical chapters by Wijman and Kase (intracerebral bleeding) and Wijdicks (subarachnoid hemorrhage). To put it in the words of two of the authors, this book certainly “includes the latest ... approaches to face severe stroke; however, it has to be stressed that the time lag from onset to treatment is the crucial determinant of therapeutic success.” For instance, in the first (and only) trial demonstrating that early (within 3 hours) intravenous thrombolysis is an effective treatment of ischemic stroke, 15.000 patients who had sustained a stroke within 24 hours had to be screened in order to find 624 who could be included in the study with an intent to treat within 3 hours. Thus, the future perspectives must be at least three-fold: first, to increase the public awareness of stroke as an emergency condition; second, to expedite and refine early stroke management in the current health care systems; and third, to arrive at an effective neuroprotective strategy that can extend the currently very limited window of opportunity for arterial recanalization. In the meantime, this books is exciting reading.

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