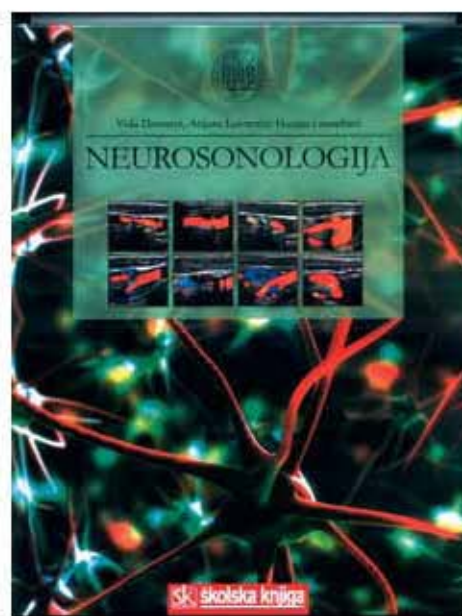


## BOOK REVIEW



**NEUROSONOLOGIJA (NEUROSONOLOGY)**  
**BY VIDA DEMARIN, ARIJANA LOVRENČIĆ-**  
**HUZJAN AND COWORKERS**  
**ŠKOLSKA KNJIGA, ZAGREB 2009, 319 PAGES**  
**ISBN 978-953-0-31553-2**

Stroke is the second leading cause of death in Croatia, the leading cause of disability and one of the causes of dementia. Therefore, its recognition and treatment is essential in stroke management. Recognizing the risk factors and asymptomatic individuals with cerebral blood vessel disease is most important in stroke prevention. Such a diagnosis can be made by noninvasive neurosonology techniques. In the last three decades, the development of neurosonological techniques enabled extensive applications in a greater extent than previous hemodynamic assessment of carotid arteries.

Ultrasound techniques enable noninvasive assessment of cerebral blood vessels, their morphology and

real time hemodynamics, as well as their monitoring. Color coded ultrasonography is today the most advanced technology in vascular ultrasonography, and in the hand of experienced professionals this technique allows a rapid, noninvasive, cost-effective and reliable holistic investigation of both emergency patients with stroke, coma, headache, vertigo and other brain disorders, and patients at risk of stroke identified by the presenting risk factors. The field is becoming very competitive against other neuroimaging techniques, and will finally lead to a conclusion that these techniques are complementary rather than inter-replacing. Instead, it allows for functional assessment of brain tissue for a variety of neurologic disorders. In the assessment of cerebrovascular pathology, color coded duplex ultrasonography does not leave major diagnostic gaps and can only be overcome in terms of refinement and precision by the invasive procedure of digital subtraction angiography, reserved only for specific cases.

In this unique book, Vida Demarin and Arjana Lovrenčić-Huzjan have gathered the leading authors in the field of neurosonology, covering all fields of neurosonology. The reader is concisely guided from neurovascular anatomy and technical principles over a broad spectrum of cerebrovascular diseases, forward to the transcranial approach and therapeutic possibilities of ultrasonography, to visualization of the occluded blood vessel. Recent applications in the assessment of early markers of cerebrovascular diseases and intima-media thickness are also presented. Novel applications like three-dimensional ultrasound and the application in pediatric population make this publication a complete textbook, essential for all clinicians, i.e. neurologists, neuropsychiatrists, vascular surgeons, angiologists and neuroradiologists.

The book concept is modern in terms of its outlay, appealing predominantly on visual pathways by looking at illustrative images, enabling understand-

ing them immediately with the help of illustrative and explanatory drawings rather than leaving the reader alone with long texts and his own imagination. This extensive publication of 319 pages in 18 chapters and 332 figures offers a well designed and successful synthesis of a textbook and an atlas.

This textbook is the result of the authors' engagement in the development of neurosonological diag-

nostics, intended to stimulate the interest of those colleagues that have not yet had any direct experience with neurosonologic techniques, and to serve to those engaged in this unique diagnostics, to improve their knowledge and ameliorate their work in the clinical setting.

*Zlatko Trkanjec*