

Contents

H. Kalimo, L. Paljärvi, Y. Olsson, and B.K. Siesjö Structural Aspects of Energy Failure States in the Brain	1
J. van Reempts and M. Borgers Morphological Aspects of Brain Protection in Experimentally Induced Hypoxia	12
G. Rosner and W.-D. Heiss Survival of Cortical Neurons After Ischemia: Dependency on Severity and Duration	25
J. Astrup Membrane Stabilization and Protection of the Ischemic Brain	31
D. Heuser and H. Guggenberger Recovery From Disturbed Cerebral Ion Homeostasis Following Severe Incomplete Ischemia and Modification by the Metabolic Depressant Drug Etomidate	38
G.K. Shiu, E.M. Nemoto, J.P. Nemmer, and P.M. Winter Comparative Evaluation of Barbiturate and CA^{++} Antagonist Attenuation of Brain Free Fatty Acid Liberation During Global Brain Ischemia	45
M.R. Lin, E.M. Nemoto, and P.D. Kessler Alterations in Whole Brain Cyclic-AMP and Cerebral Cortex Na-Inducible Cyclic-AMP in Rats During and After Complete Global Ischemia	55
G. Mies, H.-J. Bosma, W. Paschen, and K.A. Hossmann Pathophysiology and Pathobiochemistry of Acute Brain Infarction in the Gerbil: The Influence of Metabolic Inhibition	67
A. Mullie, K. Vandeveld, H. van Belle, A. Jagenau, J. van Loon, C. Hermans, and A. Wauquier A Dog Model to Evaluate Post-Cardiac Arrest Neurological Outcome	76

C. Krier and S. Hoyer Cortical Glucose and Energy Metabolism During Complete Cerebral Ischemia and After Recovery	81
L. Symon Monitoring of Cerebral Ischaemia in Man	88
J. D. Miller Clinical Trials of Brain Protection: Problems and Solutions ..	95
A. Wauquier, D. Ashton, C. Hermans, and G. Clinke Pharmacological Effects in Protective and Resuscitative Models of Brain Hypoxia	100
N. M. Dearden and D. G. McDowall The Clinical Use of Hypnotic Drugs in Head Injury	112
D. Kling, W. Russ, and G. Hempelmann Indications for Cerebral Protection	116
L. M. Auer Prophylaxis of Cerebral Ischemic Damage From Vasospasm After Subarachnoid Hemorrhage	124
M. Sold, M. R. Gaab, B. Poch, and V. Heller Brain Protection by Barbiturate After Head Injury? Clinical and Experimental Results	134
K. Wiedemann Thiopentone in the Treatment of Severe Head Injury: Is Raised Intracranial Pressure the Sole Indication for Its Use?	146
D. A. Bruce Brain Resuscitation in Children: Current Indications and Future Directions	158
Statement and Conclusions	164
Subject Index	167