No. 1 (January-February)

Evaluation of Cerebral Vascular Disease with Radionuclide Angiography
Ronald J. Fischer, and August Miale, Jr. ........................................ 1

The Effect of Hyperbaric Oxygen on the Mental and Verbal Ability of Stroke Patients
John E. Sarno, Howard A. Rusk, Leonard Diller, and Martha T. Sarno .... 10

Experimental Brain Prosthesis for Stroke
L. R. Pinneo, J. N. Kaplan, E. A. Elpel, P. C. Reynolds, and J. H. Glick 16

Papaverine Hydrochloride and Experimental Hemorrhagic Cerebral Arterial Spasm
Akio Kuwayama, Nicholas T. Zervas, Akira Shintani, and Kenneth S. Pickren .................................................. 27

Rapid Microvascular Repair Using Plastic Adhesive
Akira Shintani, Nicholas T. Zervas, and Akio Kuwayama .................. 34

Genetics of Cerebrovascular Accidents
Milton Alter, and John Kluznik .................................................. 41

A Model for Experimental Cerebral Arterial Spasm
Akio Kuwayama, Nicholas T. Zervas, Roger Belson, Akira Shintani, and Kenneth Pickren ........................................ 49

Relationship of Serial Measurements of Cerebral Hemodynamics to Prognosis in Patients with Hypertension and Cerebrovascular Disease
Saburo Yamaoka, Yasuyuki Takagi, Toshihiro Okada, and Yoshio Saito 57

Fibromuscular Dysplasia of the Extracranial Internal Carotid Arteries Associated with an Ulcerative Plaque
H. Hooshmand, M. E. Boykin, F. S. Vines, and H. M. Lee ............... 67

Pathophysiological Responses to Acute Cerebral Ischemia in the Gerbil
Bernard C. Wexler ........................................................................... 71

Abstracts .......................................................................................... 79

An Appreciation ............................................................................. 98

News from the American Heart Association .................................. 99

No. 2 (March-April)

SPECIAL ARTICLE
Summary of the Eighth Princeton Conference on Cerebral Vascular Diseases, January 5-7, 1972, Nassau Tavern, Princeton, New Jersey
Prepared by C. H. Millikan, Editor of STROKE .................................. 105

Septic Cerebral Embolism
Gaetano F. Molinari ........................................................................ 117

Intracranial Pressure Gradients Associated With Experimental Cerebral Embolism
Mario Brock, Joachim Beck, Evangelos Markakis, and Herrmann Dietz 123

(Continued)
### CONTENTS OF VOLUME III

**Cranial Arteritis With Liver Involvement**  
Donald C. Mann, and James F. Toole ........................................... 131

**The Treatment of Brain Ischemia With Vasopressor Drugs**  
Gary Wise, Robert Sutter, and James Burkholder .......................... 135

**Abnormal Hemispheric Blood Flow and Metabolism in Cerebrovascular Disease. I. Disordered Patterns of Hemispheric Metabolism**  
John Stirling Meyer, Yasuo Fukuuchi, Kunio Shimazu, Tadao Ohuchi, and Arthur Dale Ericsson ................................. 141

**Abnormal Hemispheric Blood Flow and Metabolism in Cerebrovascular Disease. II. Therapeutic Trials With 5% CO₂ Inhalation, Hyperventilation and Intravenous Infusion of THAM and Mannitol**  
John Stirling Meyer, Yasuo Fukuuchi, Kunio Shimazu, Tadao Ohuchi, and Arthur Dale Ericsson ................................. 157

**Effect of Intravenous Infusion of Glycerol on Hemispheric Blood Flow and Metabolism in Patients With Acute Cerebral Infarction**  
John Stirling Meyer, Yasuo Fukuuchi, Kunio Shimazu, Tadao Ohuchi, and Arthur Dale Ericsson ................................. 168

**Relationships Between Cerebral Perfusion Pressure and Regional Cerebral Blood Flow in Patients With Severe Neurological Disorders**  
M. Peter Heilbrun, Paul Balslev Jorgensen, and Gudrun Boysen ............. 181

**Abstracts** .............................................................................. 196

**News from the American Heart Association** ............................ 222

---

**No. 3 (May-June)**

**Newer Techniques of Cerebral Blood Flow Measurement**  
Jerome B. Posner ........................................................................ 227

**Case Report. Spinal Cord Ischemia Associated With a Repair of a Ruptured Abdominal Aortic Aneurysm**  
Leon Michaels ............................................................................ 238

**Basilar Arterial Flow Changes Elicited by Hydralazine Hydrochloride, Isoxsuprine Hydrochloride and Nylidrin Hydrochloride**  
Willis K. Mitchell, and Williamina A. Himwich ............................ 240

**Can Plasma Skimming or Inconstancy of Regional Hematocrit Introduce Serious Errors in Regional Cerebral Blood Flow Measurements or Their Interpretation?**  
William I. Rosenblum .................................................................. 248

**The Hemodynamic Importance of the Geometry of Bifurcations in the Circle of Willis (Glass Model Studies)**  
Margot R. Roach, Susan Scott, and Gary G. Ferguson ....................... 255

**The Course of Experimental Cerebral Infarction—The Development of Increased Intracranial Pressure**  
James H. Halsey, Jr., and Norman F. Capra .................................. 268

**Cerebral Blood Flow and Metabolism Studies Comparing Krypton 85 Desaturation Technique With Argon Desaturation Technique Using the Mass Spectrometer**  
Mark L. Dyken ............................................................................ 279

**Monocytes and Basophilic Granulocytes in the Cranial Circulation of Patients With Organic Brain Disorders**  
Ernst Thonnard-Neumann ............................................................ 286

(Continued)
Validation of Jugular Venous Flow as an Index of Total Cerebral Blood Flow
   Edwin M. Wilson, James H. Halsey, Jr., and Jiri J. Vitek 300

Development and Evaluation of an Experimental Model for the Study of the Cerebral Circulation in the Unanesthetized Goat
   Charles Reimann, Salvador Lluch, and Gerald Glick 322

Abstracts 329

News from the American Heart Association 345

Report of the Joint Committee for Stroke Facilities—
   Table of Organization, Introduction 351
   I. Epidemiology for Stroke Facilities Planning 360
   II. Stroke Rehabilitation 375

No. 4 (July-August)

Hemoglobin and the Risk of Cerebral Infarction: The Framingham Study
   William B. Kannel, Tavia Gordon, Philip A. Wolf, and Patricia McNamara 409

Control of Cerebral Vasospasm by Parenteral Phenoxybenzamine
   Eugene S. Flamm, M. Gazi Yasargil, and Joseph Ransohoff 421

Estrogenic Therapy in Men With Ischemic Cerebrovascular Disease: Effect on Recurrent Cerebral Infarction and Survival
   sky, Weaver O. Howard, Henry Leffman, Edward Lewin, Carl K. Liap-
   cheff, Bernard Messert, Joseph Milligan, Leston B. Nay, Jr., J. Carroll Ramseyer, Wilbur Schwartz, J. K. Smith, Joseph W. Steifel, J. Teclaw,
   Karel Toll, B. Lionel Truscott, John Warner, A. B. Williamson, Jr., Jose M. Segarra, Gilbert W. Beebe, Julian Lewis, M. Dean Netzger,
   Lawrence W. Shaw, R. Philip Eaton, Benedict Nagler, Robert Oseasohn,
   A. L. Sahs, and Jeremiah Stamler 427

Spontaneous Dissecting Aneurysm of the Internal Carotid Artery

Cerebral Blood Flow, Metabolism and Mean Arterial Pressure Changes Following Unilateral Internal Carotid Endarterectomy: Cerebral
   Ischemia and Elevated Systemic Arterial Pressure
   F. Haven Jones, Mark L. Dyken, and Robert King 441

Preparation and Analysis of 4-Iodoantipyrine- (131I)
   Joseph DiMattio, and G. M. Hochwald 446

Cerebral Vasospasm With Infarction
   Frederick A. Simeone, and Peter Trepper 449

Cerebral Hemispheric “Counter-Steal” Phenomenon During Hyper-
   ventilation in Cerebrovascular Diseases
   G. Raimondo Pistolese, Vittorio Faraglia, Alessandro Agnoli, Massi-
   miliano Prencipe, Enrica Pastore, Carlo Spartera, and Paolo Fiorani 456

Occlusion of All Four Extracranial Vessels With Minimal Clinical Symptomatology. Case Report
   Jiri J. Vitek, James H. Halsey, Jr., and Holt A. McDowell 462

About Three Old Men: An Inquiry Into How Cerebral Arteriosclerosis Has Altered World Politics
   Walter J. Friedlander 467

(Continued)
CONTENTS OF VOLUME III

Abstracts ................................................................. 474
News from the American Heart Association ....................... 497
Report of the Joint Committee for Stroke Facilities—
   III. The Laboratory Evaluation of Neurovascular Disease (Stroke) 503

No. 5 (September-October)

Arteriographically Visualized Extravasation in Hypertensive Intracerebral Hemorrhage. Report of Seven Cases
Masahiro Mizukami, Goro Araki, Hiroshi Mihara, Takashi Tomita, and Ryozo Fujinaga .................................... 527

Studies on Mechanisms of Impairment of Cerebral Circulation Following Ischemia: Effect of Hemodilution and Perfusion Pressure
Edwin G. Fischer, and Adelbert Ames, III .......................... 538

Serial Changes in Glucose Utilization and Insulin and Growth Hormone Secretion in Acute Cerebrovascular Disease
T. A. Huff, H. E. Lebovitz, A. Heyman, and L. Davis .............. 543

Cerebral Macroangiography After Hypocarbia and Hypercarbia. Demonstration of Deep Vascular Changes Produced by PaCO₂ Variations in the Normal and Ischemic Brain of the Rhesus Monkey
Timothy Harrington, and Giovanni Di Chiro ...................... 553

The Effect of Intracarotid Aminophylline Infusion on the Cerebral Circulation
U. Gottstein, and O. B. Paulson ...................................... 560

Hyperventilation and Cerebral Blood Flow
Marcus E. Raichle, and F. Plum ....................................... 566

The Hypoglossal Nerve in Carotid Arterial Reconstructions
Anthony M. Imparato, Aldo Bracco, Geun Eun Kim, and Louis Bergman ......................................................... 576

Survey of Stroke Epidemiology Studies
Prepared by Lewis H. Kuller, Leonard P. Cook, and Gary D. Friedman, Committee on Criteria and Methods, Council of Epidemiology, American Heart Association ........................................ 579

Continued Patency of Canine Lingual-Basilar System
O. Howard Reichman ..................................................... 586

Cerebral Arteriovenous Shunts Re-examined
David W. Rowed, Violet J. Stark, Paul B. Hoffer, and Sean Mullan .......................... 592

Opacity Pulse Propagation Measurement and Thermometry in the Evaluation of Carotid Oclusive Vascular Disease: Correlations With Angiography
Thomas R. Price, and Albert F. Heck ................................ 601

Abstracts ....................................................................... 604
News from the American Heart Association ....................... 626
Report of the Joint Committee for Stroke Facilities—
   IV. Guidelines for the Nursing Care of Stroke Patients ....... 631

No. 6 (November-December)

SPECIAL ARTICLE
Report on Symposium on Atherosclerosis, 48th Annual Meeting of the American Association of Neuropathologists
William I. Rosenblum ...................................................... 683

(Continued)
CONTENTS OF VOLUME III

Cerebral Vasodilator Therapy in Stroke
Lawrence C. McHenry, Jr. ........................................ 686

Oxygen Availability in Ischemic Brain Following Hypocarbia and Hypercarbia
Timothy Harrington, Mitchell Major, Ayub K. Ommaya, and Giovanni Di Chiro ........................................ 692

The Process of Recovery After Hemiplegia
Michael Newman .................................................. 702

The Sympathetic Nervous System and the Regulation of Cerebral Blood Flow in Man
Erik Skinhoj ......................................................... 711

Humoral Responses of Smooth Muscle from Rabbit Subarachnoid Artery Compared to Kidney, Mesentery, Lung, Heart, and Skin Vascular Smooth Muscle
Thoralf M. Sundt, Jr., and R. K. Winkelmann ................. 717

Experimental Brain Ischemia: Protection From Irreversible Damage With a Rapid-Acting Barbiturate (Methohexital)
F. M. Yatsu, I. Diamond, C. Graziano, and P. Lindquist .......... 726

Cerebral Anoxia: Protein Metabolism During Recovery in In Vitro Model
Takehiko Yanagihara ............................................ 733

Diagnostic Information Available in University and Community Hospital Medical Records: Patients With Cerebrovascular Disease
Robert R. Carpenter, Kenneth D. Rogers, and David E. Reed .......... 739

The Outcome for Patients With Cerebrovascular Disease in University and Community Hospitals
Robert R. Carpenter, and David E. Reed ......................... 747

The Use of Medical Facilities for Cerebrovascular Disease Patients in a County of Western Pennsylvania
Robert R. Carpenter, Kenneth D. Rogers, and David E. Reed .......... 759

Identification of Individuals With Covert Ischemic Thrombotic Cerebrovascular Disease: A Discriminant Function Analysis
Menard M. Gertler, James L. Rosenberger, and Hillar E. Leetma .......... 764

Abstracts ......................................................... 772

News from the American Heart Association ......................... 799

Report of the Joint Committee for Stroke Facilities—
V. Clinical Prevention of Stroke .................................. 803

Author Index ...................................................... 827

Subject Index .................................................... 829