EDITORIAL: Treatment of Impending Stroke
Fletcher H McDowell, Clark H. Millikan, and Murray Goldstein

Anticoagulant vs Anti-Platelet Therapy As Prophylactic Against Cerebral Infarction in Transient Ischemic Attacks
Jan-Edvin Olsson, Carl Brechter, Hans Bäcklund, Hans Krook, Regnar Müller, Eva Nitelius, Olle Olsson, and Axel Tornberg

Plasma Acetylsalicylate and Salicylate and Platelet Cyclooxygenase Activity Following Plain and Enteric-Coated Aspirin
M. Ali, J W. D. McDonald, J. J. Thiessen, and P. E. Coates

Factors Related to Stroke Incidence in Hawaii Japanese Men. The Honolulu Heart Study
Abraham Kagan, Jordan S. Popper, and George G. Rhoads

Incidence of Transient Cerebral Ischemic Attack in Hawaii Japanese Men. The Honolulu Heart Study
George G. Rhoads, Jordan S. Popper, Abraham Kagan, and Katsuhiko Yano

Comparison of Doppler Sonography and Plate Thermography for Detection of Carotid Artery Stenosis
B. Hofferberth, M. Gottschaldt, and S. Dykan

Reduction in Regional Cerebral Blood Flow During Normal Aging in Man
Eldad Melamed, Sylvan Lavy, Shlomo Bentin, Gerald Cooper, and Yosef Rinot

Effect of Chronic Atrial Fibrillation on Regional Cerebral Blood Flow
Sylvan Lavy, Shlomo Stern, Eldad Melamed, Gerald Cooper, Andre Keren, and Pirha Levy

Regional Cerebral Blood Flow in the Rat as Determined by Particle Distribution and by Diffusible Tracer
Roger W. Horton, Timothy A. Pedley, and Brian S. Meldrum

Positron Imaging of Cerebral Blood Flow During Continuous Inhalation of C14O2
Robert H. Ackerman, Rajeshwari Subramanly, John A. Correia, Nathaniel M. Alpert, and Juan M. Taveras

Cerebral Pathophysiology in Hemorrhagic Shock. Nuclide Scan Data, Fluorescence Microscopy, and Anatomic Correlations
Michael M. Bronshvag

Low Molecular Weight Dextran in Experimental Embolectomy
Ranjit K. Loha, Jacob Israeli, Manuel Dujovny, Pedro J. Barrientouvo, and Harold R. Hellstrom

Extracranial Occlusive Vascular Disease: Does Size Matter?
Louis R Caplan and Richard Baker

Carotid Artery Velocity Patterns in Normal and Stenotic Vessels
W. M. Blackshear, Jr., D. J. Phillips, P. M. Chikos, J. D. Harley, B. L. Thiele, and D. E. Strandness, Jr

Comparative Effects of Unilateral and Bilateral Carotid Artery Ligation in the Spontaneously Hypertensive Rat
Bernard C. Wexler

Correlation Between Glucose Utilization and Metabolite Levels During Focal Ischemia in Cat Brain
Frank A. Welsh, Joel H. Greenberg, Stephen C. Jones, Myron D. Ginsberg, and Martin Reivich

Primary Pontine Hemorrhage: Clinicopathological Correlations
Noboru Goto, Mitsuo Kaneko, Yasuaki Hosaka, and Hiroaki Koga

Arterial Occlusion Following Anastomosis of the Superficial Temporal Artery to Middle Cerebral Artery
Anthony J. Furlan, John R. Little, and Donald F. Dohn

Spontaneous Bilateral Recanalization in Bilateral Internal Carotid Artery Occlusion
Thomas-Marc Markwalder, Richard W. Starrett, and Mark Mumenthaler

BRIEF COMMUNICATION: Effects of Formaldehyde Fixation on Basilar Artery Caliber
Michael Noel Hart and Susan L. O'Donnell

Abstracts of Literature

Abstracts of the 5th Joint Meeting on Stroke and Cerebral Circulation

News from the American Heart Association
EDITORIAL: In Answer to the Question: "As Compared to What?" A Progress Report on the EC/IC Bypass Study

Integrity of Blood-Brain Barrier During Ethanol Intoxication and Withdrawal in the Rat: Normal Glucose Transfer and Permeability to Na⁺ and Cl⁻
Ralf Hemmingsen, Marianne M. Hertz, and Tom G. Bolwig

Migrainous Cerebral Infarction: A Tomographic Study of Cerebral Blood Flow and Oxygen Extraction Fraction with the Oxygen-15 Inhalation Technique
M. G. Bousser, J. C. Baron, M. T. Iba-Zizen, D. Comar, E. Cabanis, and P. Castaigne

Cerebral Infarction in Young Adults. Long Term Prognosis
Bruce D. Snyder and Manuel Ramirez-Lassepas

Retinal Fluorescein Angiographic Evidence for Atheromatous Microembolism. Demonstration of Ophthalmoscopically Occult Emboli and Post-Embolic Endothelial Damage After Attacks of Amaurosis Fugax
Rafael Muci-Mendoza, Jorge Arruga, William O. Edward, and William F. Hoyt

Embolization from a Fusiform Middle Cerebral Artery Aneurysm
Michael Martin Cohen, Cincidorto P. Hemalatha, Richard T. D'Addario, and H. Warren Goldman

Epidemiology of Stroke in Tilburg, The Netherlands. The Population-Based Stroke Incidence Register: 1. Introduction and Preliminary Results
B. Herman, B. P. M. Schulte, J. H. van Luijk, ACM. Leyten, and C. W. G. M. Frenken

Effect of Steroid on Ischemic Brain Edema. Analysis of Cytotoxic and Vasogenic Edema Occurring During Ischemia and After Restoration of Blood Flow
Umeo Ito, Kikuo Ohno, Yasuo Suganuma, Kenichi Suzuki, and Yutaka Inaba

Temporal Profile (Clinical Course) of Acute Vertebrobasilar System Cerebral Infarction
H. Royden Jones, Jr., Clark H. Millikan and Burton A. Sandok

Bilateral Nothnagel Syndrome. Clinical and Roentgenological Observations
Iraj Derakhshan, Mansourer Sabouri-Deylami, and Benjamin Kaufman

Cerebral Venous Pressure During Actively Induced Hyper tension and Hypercapnia in Cats
L. Auer, B. Johansson, and E. T. MacKensie

Cholesterol Crystal Embolization in Rat Brain: A Model for Atheroembolic Cerebral Infarction
T. J. Steiner, D. L. H. Rail, and F. Clifford Rose

Hemorrhage-Induced Cerebral Vasconstriction in Dogs
William J. Pearce and Louis G. D'Alley

A Re-Examination of Physostigmine-Induced Cerebral Protection in the Hypoxic Mouse. A Critical Assessment of the Model
Alan A. Artru, and John D. Michenfelder

A Gerbil Model of Cerebral Ischemia Suitable for Drug Evaluation
D. M. Jarrott and Floyd R. Domer

CURRENT CONCEPTS OF CEREBROVASCULAR DISEASE-STROKE: Use of Balloon Catheters in the Treatment of Cranial Arterial Abnormalities
Charles Kerber

Letters to the Editor: Need for CA Doppler Exam Following Endarterectomy
G. M. von Reutern and J. Gonzales

Abstracts of Literature

No. 3 (May-June)

Amelioration of Cerebral Ischemia by Prior Treatment of Hypertension
James H. Halsey, Jr., Michael O'Brien, and Edward R. Strong

Physiological Mechanisms Controlling Cerebral Blood Flow
George McEvedlythill

Ultrasonic Demonstration of External and Internal Carotid Patency with Common Carotid Occlusion: A Preliminary Report

Effect of Steroid on Ischemic Brain Edema. Analysis of Cytotoxic and Vasogenic Edema Occurring During Ischemia and After Restoration of Blood Flow
Umeo Ito, Kikuo Ohno, Yasuo Suganuma, Kenichi Suzuki, and Yutaka Inaba

Computed Tomography in Patients Presenting with Lacunar Syndromes

Evidence for Greater Susceptibility of Isolated Dog Cerebral Arteries to Ca Antagonists than Peripheral Arteries
Koichiro Shimizu, Tomio Ohta, and Noboru Toda

Morphometric Study on Cerebral Vessels in Spontaneously Hypertensive Rats
Clas Nordborg and Barbro B. Johansson

Effects of Gamma-Hydroxybutyrate and Gamma-Butyrolactone on Cerebral Energy Metabolism During Exposure and Recovery From Hypoxemia-Oligemia
V. MacMillan

(Continued)
CONTENTS OF VOLUME XI

Resolving Siphon Stenosis Following Endarterectomy .......................................................... 278
Arthur L. Day, Albert L. Rhoton, and Ronald G. Quisling

Steal Phenomenon at Unclamping During Carotid Endarterectomy .................................... 282

Enhancement of Cerebrovascular Effect of CO2 by Hypoxia .................................................. 286
Stephen R. Quint, Oscar U. Scremin, Ralph R. Sonnenchein, and Eduardo H. Rubinstein

Amaurosis Fugax Associated with Ophthalmic Artery Stenosis: Clinical Simulation of Carotid Artery Disease .......................................................... 290
Jesse Weinberger, Adam N. Bender and Wen C. Yang

Superior Sagittal Sinus Thrombosis 10 Years After Surgery for Ulcerative Colitis ............. 294
Mark S. Yerby and George M. Bailey

Hyperbaric Oxygenation as an Adjunct Therapy in Strokes Due to Thrombosis: A Review of 122 Patients .......................................................... 297
Richard A. Neubauer and Edgar End

CURRENT CONCEPTS OF CEREBROVASCULAR DISEASE-STROKE: Dizziness and Vertigo in Vertebobasilar Disease Part 1: Peripheral and Systemic Causes of Dizziness ............. 301
B. Todd Troost

Letters to the Editor: Long Time Survival After Vertebral/Basilar Occlusion .................. 304
Kjell Asplund, P. O. Wester, Harald Frostdal, and Bengt Liljestquist

Abstracts of Literature .......................................................... 305

News from the American Heart Association .... 324A

Value of the Non-Invasive Cerebrovascular Laboratory in Diagnosis of Extracranial Carotid Artery Disease. An Analysis of 159 Studies in 157 Patients ....................... 325
Arnold Goran and Gail Moore

Elastic Elements in the Media and Adventitia of Human Intracranial Extracerebral Arteries F. T. Merei, F. Gallyas, and Z. Horvath

Production of Various Models of Cerebral Infarction in the Dog by Means of Occlusion of Intracranial Trunk Arteries .......................................................... 337
Jiro Suzuki, Takashi Yoshimoto, Satoru Tsuchiya, and Tetsuya Sakamoto

Cerebral Hemodynamic Response to Mental Activation in Normo- and Hypercapnia ...... 342
V. Alexander Maximilian, Iak Prohovnik, and Jarl Risberg

Deleterious Effect of Glucose Pretreatment on Recovery from Diffuse Cerebral Ischemia in the Cat. I. Local Cerebral Blood Flow and Glucose Utilization .................... 347
Myron D. Ginsberg, Frank A. Welsh, and William W. Budd

Deleterious Effect of Glucose Pretreatment on Recovery from Diffuse Cerebral Ischemia in the Cat. II. Regional Metabolic Levels ........ 355
Frank A. Welsh, Myron D. Ginsberg, Wendy Rieder, and William W. Budd

Cerebral Arterial Contractions Induced by Human and Bovine Thrombin ..................... 363
Richard P. White, Charles E. Chapleau, Marion Dugdale, and James T. Robertson

Pial Vascular Reaction to Intravenous Dihydropyridine in the Cat ........................................ 369
Barbro B. Johansson, Ludwig M. Auer, and Ulrike G. Trummer

Analysis of Cerebrovascular Action of Diazoxide in Conscious Goats ....................... 372
G. Dieguez, B. Gomez, and S. Lluch

Cerebral Protective, Metabolic, and Vascular Effects of Phenyltoin .................................. 377
Alan A. Artru and John D. Michenfelder

Role of Central Aminergic Fibers in Experimental Cerebral Ischemia in Stroke-Prone SHR. Relation to Anesthetic Effect .......................................................... 383
Ichiro Akiguchi, Ryoshi Horie, and Yukio Yamori

Hemodynamic Response to Profound Hypoxia in Intact Rhesus Monkeys ...................... 389
Ronald E. Myers, Gary S. Kopf, and David M. Mervis

Effects of Surrounding Tissue on the Sound Spectrum of Arterial Bruits in Vivo ........ 394
Arnold Miller, Robert S. Lees, J. Philip Kistler, and William M. Abbott

Prediction of Hemispheric Blood Flow From Carotid Velocity Measurements. A Study with the Doppler and 133Xe Inhalation Techniques .............................................. 399
Jarl Risberg and Patrick Smith

Comparison of Doppler Ultrasonography with Arteriography of the Carotid Artery Bifurcation ................ 402
R. G. Weaver, Jr., George Howard, William M. McKinney, Marshall R. Bell, Anne M. Jones, and James F. Toole

Lipoxyanlinosis and Millary Microaneurysms Causing Cerebral Hemorrhage in a Patient with Moyamoya. A Clinipathological Study ............................................. 405
Anlhony J. Mauro, Edward S. Johnson, Paul M. Chikos, and Ellsworth C. Alvord, Jr.

Erratum .......................................................... 412

CURRENT CONCEPTS OF CEREBROVASCULAR DISEASE-STROKE: Dizziness and Vertigo in Vertebobasilar Disease. Part II. Central Causes and Vertebobasilar Disease ............. 413
B. Todd Troost

Abstracts of Literature .......................................................... 416

News from the American Heart Association .... 431A (Continued)
EDITORIAL: Cerebral Blood Flow and Energy Metabolism in Vascular Insufficiency 431
Cesare Fiaschi

PROGRESS IN CEREBROVASCULAR DISEASE. Management of Cerebral Embolism of Cardiac Origin 433
J. Donald Easton and David G. Sherman

Summary of 12th Conference on Cerebrovascular Disease. Williamsburg, Virginia, March 2-4, 1980 442
Fletcher H. McDowell and Clark H. Mullikan

Radionuclide Angiography and Doppler Sonography to Detect Patients with Cerebrovascular Disease. A Correlation with Radiographic Angiography 452
U. Buell, D. Leschem, M. Rath, M. Rose, and F. Marguth

Quantitative Study of the Rate of Recovery From Aphasia Due to Ischemic Stroke 455
G. Demeurisse, O. Demol, M. Derouck, R. De Beuckelaer, M.-J. Coekaerts, and A. Capon

Subdural Hematoma of the Spinal Cord and Widespread Subarachnoid Hemorrhage Complicating Anticoagulant Therapy 459
H. V. Vinters, H. J. M. Barnett, and J. C. E. Kaufmann

Intracranial Embolization Via External Carotid Artery: Report of a Case with Angiographic Documentation 465
Roger W. Countee and Thurairasah Vijayanathan

Response of Cerebral Circulation to Topical Histamine 469
Albert N. Martus, Thomas F. Doyle, Sanford J. Wright, Jr., and Billy G. Bass

Cerebral Fat Embolism: A Neuropathological Study of a Microembolic State 477
Elizabeth Kamenar and Peter C. Burger

Angiographic Appearance of Carotid Occlusion in Acute Stroke 485
Michael S. Pessin, Gary W. Duncan, Kenneth R. Davis, Richard C. Hinton, Glen H. Roberson, and J. P. Mohr

Correlation Between rCBF and Histological Changes Following Temporary Middle Cerebral Artery Occlusion 487
Akira Tamura, Takaos Asano, and Keiji Sano

Cerebral Blood Flow and Edema Following Carotid Occlusion in the Gerbil 494
Alan Crockard, Fausto Iannotti, Alan T. Hurstock, Roger D. Smith, Robert J. Harris, and Lindsay Symon

Brain Events Associated with Mitral Valve Prolapse 499
Maurice R. Hanson, John P. Conomy, and James R. Hodgman

Butanediol Induced Ketosis Increases Tolerance to Hypoxia in the Mouse 506
Jeffrey R. Kirsch, Louis G. D'Alacy, and Peter B. Mongroo

Hypoxic Tolerance Enhanced by β-Hydroxybutyrate-Insulin in the Mouse 513
Steven M. Eiger, Jeffrey R. Kirsch, and Louis G. D'Alacy

Transient Appearance of “No-Reflow” Phenomenon in Mongolian Gerbils 517
Umeo Ito, Kikuo Ohno, Takekane Yamaguchi, Hiroki Tomita, Yuika Inaba, and Masatoshi Kashima

Cholinergic Regulation of Intracerebral Noradrenergic Pathway-Induced Hypothalamic Vasodilatation 522
K. P. Klugman, G. Mitchell, and C. Rosenbroff

Light Touch Thresholds in Normal Persons and Cerebral Vascular Disease Patients: Bilateral Deficit After Unilateral Lesion 528
June Perry Essing, Jerome W. Gersten, and Philip Yarnell

Local Cerebral Blood Flow Following Transient Cerebral Ischemia. I. Onset of Impaired Reperfusion within the First Hour Following Global Ischemia 534
Calvin L. Miller, Douglas G. Lampard, Karl Alexander, and William A. Brown

Local Cerebral Blood Flow Following Transient Cerebral Ischemia. II. Effect of Arterial PCO₂ on Reperfusion Following Global Ischemia 542
Calvin L. Miller, Karl Alexander, Douglas G. Lampard, William A. Brown, and Robert Griffiths

Survival Under Hypoxia. Age Dependence and Effect of Cholinergic Drugs 548
Antonia M. E. Scremin, Oscar U. Scremin, and Theresa Brechner

H₂ Clearance Measurement of Blood Flow: A Review of the Technique and Polarographic Principles 552
Wise Young

CURRENT CONCEPTS OF CEREBROVASCULAR DISEASE-STROKE Amelioration of Post-Ischemic Brain Damage with Barbiturates 565
Peter Safar

Letters to the Editor: Liquid Crystal Thermography: Comments on Technique 569
Thomas W. Furlow, Jr.

Abstracts of Literature 570

News from the American Heart Association 582A

(Continued)
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Brain Infarcts in Cats. I. Pathophysiological Observations</td>
<td>583</td>
</tr>
<tr>
<td>K.-A. Hossmann and F.J. Schuier</td>
<td></td>
</tr>
<tr>
<td>Experimental Brain Infarcts in Cats. II. Ischemic Brain Edema</td>
<td>593</td>
</tr>
<tr>
<td>F.J. Schuier and K.-A. Hossmann</td>
<td></td>
</tr>
<tr>
<td>Intra-Arterial Nitroprusside Treatment of Acute Experimental Vasospasm</td>
<td>601</td>
</tr>
<tr>
<td>Leonard F. Hirsh</td>
<td></td>
</tr>
<tr>
<td>Effect of Hypertension on Blood-Brain Barrier Change After Restoration of Blood Flow In Post-Ischemic Gerbil Brains</td>
<td>606</td>
</tr>
<tr>
<td>Umeo Ito, Kikuo Ohno, Takekone Yamaguchi, Hidenori Takai, Hiroki Tomita and Yutaka Inaba</td>
<td></td>
</tr>
<tr>
<td>Experimental Cerebral Ischemia in Spontaneously Hypertensive Rats (SHR): Importance of Degree of Hypertension</td>
<td>612</td>
</tr>
<tr>
<td>Masatoshi Fujishima, Kinya Tamaki, Yasuo Nakatomi, Takao Ithitsuka, Keiko Nakagowara, and Teruo Omae</td>
<td></td>
</tr>
<tr>
<td>Tissue Perfusion and Iodinated Contrast Material in Ischemic Stroke</td>
<td>617</td>
</tr>
<tr>
<td>David C. Anderson, David T. Cost, Ronald L. Jacobson, and Maurice W. Meyer</td>
<td></td>
</tr>
<tr>
<td>Histochmical Changes of Brain Dopamine In an Acute Stage of Cerebral Ischemia in Gerbils</td>
<td>622</td>
</tr>
<tr>
<td>Asamitsu Aihagon, Masatsume Ishikawa, and Hajime Handa</td>
<td></td>
</tr>
<tr>
<td>“Low Perfusion Hyperemia” Following Middle Cerebral Arterial Occlusion in Cats of Different Age Groups</td>
<td>629</td>
</tr>
<tr>
<td>Minoru Tomita, Fumio Gotoh, Takahiro Amano, Norio Tanahashi, and Koriro Tanaka</td>
<td></td>
</tr>
<tr>
<td>Central Conduction Time in Primate Brain Ischemia — A Study in Baboons</td>
<td>637</td>
</tr>
<tr>
<td>Judy R. Hargadine, Neil M. Brandson, and Lindsay Symon</td>
<td></td>
</tr>
<tr>
<td>Temporal Profile of Vertebral Basilar Territory Infarction Prognostic Implications</td>
<td>643</td>
</tr>
<tr>
<td>Barbara K. Patrick, Manuel Ramirez-Laxeras, and Bruce D. Snyder</td>
<td></td>
</tr>
<tr>
<td>Effect of Unilateral Common Carotid Artery Occlusion on Levels of Prostaglandins D, E, and 6-Keto-Prostaglandin F6 in Gerbil Brain</td>
<td>648</td>
</tr>
<tr>
<td>Robert J. Gaudet and Lawrence Levine</td>
<td></td>
</tr>
<tr>
<td>Morphometry of Brain Parenchymal Vessels Following Subarachnoid Hemorrhage</td>
<td>653</td>
</tr>
<tr>
<td>Michael Noel Hart</td>
<td></td>
</tr>
<tr>
<td>Progressive Vascular Changes in Moyamoya Syndrome</td>
<td>656</td>
</tr>
<tr>
<td>Martin J. Murphy</td>
<td></td>
</tr>
<tr>
<td>Primitive Hypoglossal Artery and Carotid Endarterectomy</td>
<td>658</td>
</tr>
<tr>
<td>Joe A. Pinkerton, Jr., Kendrick C. Davidson, and Blaine Z. Hibbard</td>
<td></td>
</tr>
<tr>
<td>Continuous Quantitative Local Cerebral Blood Flow Measurement. Calibration of Thermal Conductivity Measurements by the Hydrogen Clearance Method</td>
<td>661</td>
</tr>
<tr>
<td>Joseph F. Cutick and Joel Myklebust</td>
<td></td>
</tr>
<tr>
<td>Myocardial Necrosis Induced by Breeding in Stroke-Prone/SHR</td>
<td>665</td>
</tr>
<tr>
<td>Bernard C. Wexler</td>
<td></td>
</tr>
<tr>
<td>Cervical Bruits in Hemodialysis Patients</td>
<td>672</td>
</tr>
<tr>
<td>Gary W. Duncan, Howard S. Kirshner, and William J. Stone</td>
<td></td>
</tr>
<tr>
<td>CURRENT CONCEPTS OF CEREBROVASCULAR DISEASE-STROKE Non-invasive Carotid Evaluation</td>
<td>675</td>
</tr>
<tr>
<td>Robert H. Ackerman</td>
<td></td>
</tr>
<tr>
<td>An Appreciation</td>
<td>679</td>
</tr>
<tr>
<td>Letters to the Editor: Plate Thermography: Thermal Asymmetry</td>
<td>680</td>
</tr>
<tr>
<td>B. Hofferberth</td>
<td></td>
</tr>
<tr>
<td>Abstracts of Literature</td>
<td>681</td>
</tr>
<tr>
<td>News from the American Heart Association</td>
<td>700A</td>
</tr>
<tr>
<td>Volume Author Index</td>
<td>701</td>
</tr>
<tr>
<td>Volume Subject Index</td>
<td>704</td>
</tr>
</tbody>
</table>