Circulation Research
AN OFFICIAL JOURNAL OF THE AMERICAN HEART ASSOCIATION

VOLUME 50
January-June 1982

No. 1 (January)
Brief Reviews: K⁺ Fluctuations in the Extracellular Spaces of Cardiac Muscle. Evidence from the Voltage Clamp and Extracellular K⁺-Selective Microelectrodes. Ira Cohen and Richard Kline 1
Mechanisms of Action of Lidocaine and Quinidine on Action Potential Duration in Rabbit Cardiac Purkinje Fibers: An Effect on Steady State Sodium Currents? Thomas J. Colatsky 17
Hyperemic Response of the Coronary Circulation to Brief Diastolic Occlusion in the Conscious Dog. Gregory G. Schwartz, Philip A. McHale, and Joseph C. Greenfield, Jr. 28
Coronary Vasodilation after a Single Ventricular Extra-Activation in the Conscious Dog. Gregory G. Schwartz, Philip A. McHale, and Joseph C. Greenfield, Jr. 38
A Dynamic Electrical Record of the Pathway of Human His Bundle Activation from Surface Mapping. Leon G. Horan, Nancy C. Flowers, and Gurbachan S. Sohi 47
Increased Size of Myocardial Infarction in Dogs with Chronic Hypertension and Left Ventricular Hypertrophy. Samon Koyanagi, Charles L. Eastham, David G. Harrison, and Melvin L. Marcus 55
Mechanical Interactions between Four Heart Chambers with and without the Pericardium in Canine Hearts. Yukio Maruyama, Kouichi Ashikawa, Shogen Isoyama, Hiroshi Kanatsuka, Eiji Ino-Oka, and Tamotsu Takishima 86
Thyroxine-Induced Redistribution of Isoenzymes of Rabbit Ventricular Myosin. Anne F. Martin, Edward D. Pagani, and R. John Solaro 117
A Positive Feedback Sympathetic Pressor Reflex during Stretch of the Thoracic Aorta in Conscious Dogs. Massimo Pagani, Paolo Pizzinelli, Mario Bergamaschi, and Alberto Marianti 125
Effects of Capsaicin and Bradykinin on Afferent Fibers with Endings in Skeletal Muscle. Ronald W. Joyner 192
Comparative Sequence of Myosin Light Chains from Normal and Hypertrophied Human Hearts. Catherine Klotz, Jean J. Leger, and Marshall Elzinga 192
pH-Dependent Effects of Quinidine on the Kinetics of dV/dtmax in Guinea Pig Ventricular Myocardium. Augustus O. Grant, Joey L. Trantham, Kathleen K. Brown, and Harold C. Strauss 201
Electrophysiological and Electron Microscopic Correlations Concerning the Effects of Neuraminidase on Canine Heart Cells. W. Thomas Woods, Kikuko Imamura, and Thomas N. James 228
Microcirculation of Left Atrial Muscle, Cerebral Cortex, and Mesentery of the Cat: A Comparative Analysis. Bing-Lo Chang, Takashi Yamakawa, Jill Nuccio, Ron Pace, and Richard J. Bing 240
Ethanol-Induced Alterations in Pancreatic Blood Flow in Conscious Dogs. Lawrence D. Horwitz and J. Hurley Myers 250

No. 2 (February)
Brief Reviews: Cardiac Autonomic Receptors: Recent Concepts from Radiolabeled Ligand-Banding Studies. August M. Watanabe, Larry R. Jones, Allan S. Manalan, and Henry R. Besch, Jr. 161
Effects of the Discrete Pattern of Electrical Coupling on Propagation through an Electrical Syncytium. Ronald W. Joyner 192
Comparative Sequence of Myosin Light Chains from Normal and Hypertrophied Human Hearts. Catherine Klotz, Jean J. Leger, and Marshall Elzinga 201
pH-Dependent Effects of Quinidine on the Kinetics of dV/dtmax in Guinea Pig Ventricular Myocardium. Augustus O. Grant, Joey L. Trantham, Kathleen K. Brown, and Harold C. Strauss 218
Electrophysiological and Electron Microscopic Correlations Concerning the Effects of Neuraminidase on Canine Heart Cells. W. Thomas Woods, Kikuko Imamura, and Thomas N. James 228
Microcirculation of Left Atrial Muscle, Cerebral Cortex, and Mesentery of the Cat: A Comparative Analysis. Bing-Lo Chang, Takashi Yamakawa, Jill Nuccio, Ron Pace, and Richard J. Bing 240
Ethanol-Induced Alterations in Pancreatic Blood Flow in Conscious Dogs. Lawrence D. Horwitz and J. Hurley Myers 250
Shortening of the Action Potential and Reduction of Pacing Activity by Lidocaine, Quinidine, and Procainamide in Sheep Cardiac Purkinje Fibers: An Effect on Na or K Currents? Edward Carmeliet and Tetsunori Saikawa

Work as a Correlate of Canine Left Ventricular Oxygen Consumption, and the Problem of Catecholamine Oxygen Wasting. G. Alex Rooke and Eric O. Feigl

Effects of pH on Na⁺-Ca⁺⁺ Exchange in Canine Cardiac Sarcoplemmal Vesicles. Kenneth D. Philipson, Malcolm M. Bersohn, and Ann Y. Nishimoto


Non-Hydrostatic Pulmonary Edema after Coronary Artery Ligation in Dogs: Protective Effect of Indomethacin. J. Franklin Richeson, Craig Paulshock, and Paul N. Yu

The Effect of pH on the Transient-State Kinetics of Ca⁺⁺-Mg⁺⁺-ATPase of Cardiac Sarcoplasmic Reticulum: A Comparison with Skeletal Sarcoplasmic Reticulum. Frederic Mandel, Evangelia Galani Kranias, Angela Grassi de Gende, Michithiro Sumida, and Arnold Schwartz

News from the American Heart Association

No. 3 (March)

Brief Reviews: Metabolic Functions of the Pulmonary Circulation. Sami I. Said


Effect of Tissue Anisotropy on Extracellular Potential Fields in Canine Myocardium in Situ. David E. Roberts and Allen M. Scher


The Effects of Verapamil, Quiescence, and Cardioplegia on Calcium Exchange and Mechanical Function in Ischemic Rabbit Myocardium. Patrick D. Bourdillon and Philip A. Poole-Wilson

Mechanisms of Quinidine-Induced Depression of Maximum Upstroke Velocity in Ovine Cardiac Purkinje Fibers. Francis M. Weld, James Coromillas, Jeffrey N. Rottman, and J. Thomas Bigger, Jr.

Regulation of Coronary Blood Flow during Individual Diastoles in the Dog. William P. Dole and Vernon S. Bishop

Electrophysiological Effects of Procainamide in Acute and Healed Experimental Ischemic Injury of Cat Myocardium. Robert J. Myerbreg, Arthur L. Bassett, Kristina Epstein, Marion S. Gaide, Patricia Kozlovskis, Sam S. Wong, Agustin Castellanos, and Henry Gelbard

Vascular Smooth Muscle: Calmodulin and Cyclic AMP-Dependent Protein Kinase Alter Calcium Sensitivity in Porcine Coronid Skinned Fibers. J. Casper Ruegg and Richard J. Paul


Effects of Changes in Extracellular Ionic Concentrations on Aortic Baroreceptors with Nonmyelinated Afferent Fibers. Peter Thoren, Michael C. Andersen, and Arthur M. Brown

Rate and Rhythm Dependency of Propagation from Normal Myocardium to a Ba⁺⁺-K⁺-Induced Slow Response Zone in Rabbit Left Atrium. Masako Oya Masuda and Antonio Paes de Carvalho

Rapid Resettng of the Aortic Baroreceptors in the Rabbit and Its Implications for Short-Term and Longer Term Reflex Control. Patricia D. Dorward, Michael C. Andresen, Sandra L. Burke, Judith R. Oliver, and Paul I. Korner

Letters to the Editor

No. 4 (April)

Brief Reviews: Growth of Capillaries in Skeletal and Cardiac Muscle. Olga Hudlická

Sodium, Divalent Cations, and Guanine Nucleotides Regulate the Affinity of the Rat Mesenteric Artery Angiotensin II Receptor. Gregory B. Wright, R. Wayne Alexander, Laurie S. Ekstein, and Michael A. Gimbrone, Jr.

Distribution of Choline Acetyltransferase in Cerebral and Extracerebral Cranial Arteries of the Cat: Its Relationship to Neurogenic Atropine-Sensitive Dilatation. J.A. Bevan, G.M. Buga, V.M. Florence, A. Gonsalves, and A. Snowden

Interactions between Intrarenal Epinephrine Receptors and the Renal Baroreceptor in the Control of PRA in Conscious Dogs. Eli R. Fathi, James R. Cant, and A. Clifford Barger

Contribution of Thromboxane to Renal Resistance Changes in the Isolated Perfused Hydrenephrotic Rabbit Kidney. Akiyoshi Kawasaki and Philip Needleman

Increased Myothermal Economy of Isometric Force Generation in Compensated, Cardiac Hypertrophy Induced by Pulmonary Artery Constriction in the Rabbit: A Characterization of Heat Liberation in Normal and Hypertrophied Right Ventricular Papillary Muscles. Norman R. Alpert and Louis A. Muller

Influence of the Pericardium on Left Ventricular End-Diastolic Pressure-Segment Relations during Early and Later Stages of Experimental Chronic Volume Overload in Dogs. Martin M. LeWinter and Richard Pavelec
Volume Contents

No. 5 (May)

Electrophysiological Response of Vascularized Hamster Cardiac Transplants to Ischemia. Robert F. Gilmour, Jr., and Douglas P. Zipes

Hormone Receptors of the Baboon Cardiovascular System: Biochemical Characterization of Aortic and Myocardial Cytoplasmic Progesterone Receptors. Alan L. Lin, Henry C. McGill, Jr., and Sydney A. Shain


Norepinephrine Sensitivity and Densensitization of Cultured Single Vascular Muscle Cells. Kent Hermsmeyer and Ron Mason

Alterations in Local Cerebral Glucose Utilization during Hemorrhagic Hypotension in the Rat. Helen E. Savaki, Kent Hermsmeyer, and C. R. Steinhart


Increase in Intracellular Sodium Ion Activity during Stimulation in Mammalian Cardiac Muscle. Charles J. Cohen, Harry A. Fozzard, and Shey-Shing Shue

Determination of Coronary Collateral Flow by a Load Line Analysis. David Wyatt, Jinku Lee, and James M. Downey

Limited Maximal Vasodilator Capacity of Forearm Vessels in Normotensive Young Men with a Familial Predisposition to Hypertension. Akira Takeshita, Tsutomu Imazumi, Takahashi, and Motoomi Nakamura

Effect of Nitroglycerin and Nifedipine on Subendocardial Perfusion in the Presence of a Flow-Limiting Coronary Stenosis in the Awake Dog. Robert J. Bache and Bruce A. Tockman

Acute Pulmonary Hypertension and Lung Thromboxane Release after Endotoxin Infusion in Normal and Leukopenic Sheep. Peter C. Hultemeier, W. David Watkins, Myron B. Peterson, and Warren M. Zapol


Cardiac Dynamics during Hemorrhage: Relative Unimportance of Adrenergic Inotropic Responses. Thomas H. Hintze and Stephen F. Vatner

Regional Myocardial Blood Flow and Coronary Vascular Reserve in Unanesthetized Young Calves Exposed to a Simulated Altitude of 3500 m for 8–109 Weeks. Murli Manohar, Christine M. Parks, Michael A. Busch, William J. Tranquilli, Gerald E. Bisdorf, Thomas A. McPherron, and Michael C. Theodorakis

Effects of Coronary Arterial Pressure on Left Ventricular End-Systolic Pressure-Volume Relation of Isolated Canine Heart. Konji Sunagawa, W. Lowell Maughan, Gottlieb Freisinger, Pablo Guzman, Mau-Song Chang, and Kiichi Sagawa


Biosynthetic Enzyme Activities and Catecholamines in Adrenal Glands of Genetic and Experimental Hypertensive Rats. Horst Groebecker, Juan M. Saavedra, and Virginia K. Weise

Letters to the Editor

Errata

News from the American Heart Association

No. 6 (June)

Brief Reviews: Contraction-Excitation Feedback in Myocardium: Physiological Basis and Clinical Relevance. Max J. Lab

Phasic Coronary Blood Flow Velocity in Intramural and Epicardial Coronary Arteries. William M. Chilian and Melvin L. Marcus


Load Regulation of the Structure, Composition, and Function of Mammalian Myocardium. George Cooper, IV, and Robert J. Tomanek


Load Regulation of the Structure, Composition, and Function of Mammalian Myocardium. George Cooper, IV, and Robert J. Tomanek


Increased Vascular Catecholamine Sensitivity and α-Adrenergic Receptor Affinity in Female and Estrogen-Treated Male Rats. Wilson S. Colucci, Michael A. Gimbrone, Jr., Margaret K. McLaughlin, William Halpern, and R. Wayne Alexander

Force-Velocity Characteristics and Active Tension in Relation to Content and Orientation of Smooth Muscle Cells in Aortas from Normotensive and Spontaneously Hypertensive Rats. Anders Arner and Bengt Uvelius


Role of Intravascular Coagulation and Granulocytes in Lung Vascular Injury after Bone Marrow Embolism. Philip S. Bane and Asrar B. Malik

Energy Cost of Membrane Depolarization in Hog Carotid Artery. John W. Peterson and Elvira Glück

Effect of Histamine on the Energy Metabolism of K⁺-Depolarized Hog Carotid Artery. John W. Peterson

Altered Myosin Isozyme Patterns from Pressure-Overloaded and Thyrotoxic Hypertrophied Rabbit Hearts. Raye Z. Litten, III, Barbara Jill Martin, Robert B. Low, and Norman R. Alpert


Cholinergic Mechanism in the Large Cat Cerebral Artery. Tony Jer-Fu Lee

News from the American Heart Association

Volume Author Index

Volume Subject Index