Volume VIII
July-December, 1953
Circulation
A Journal of the American Heart Association

No. 1
A Study of the Usefulness and Limitations of Electrical Countershock, Cardiac Massage, Epinephrine and Procaine in Cardiac Resuscitation from Ventricular Fibrillation
René Wégria, Charles W. Frank, Hsueh-Hwa Wang, George Misrahy, Robert Miller and Peter Kornfeld

The Syndrome of Patent Ductus Arteriosus with Pulmonary Hypertension
Herbert Hullgren, Arthur Selzer, Ann Purdy, Emile Holman and Frank Gerbode

Aging Processes in the Arterial and Venous Systems of the Lower Extremities
Morton D. Pareira, Fred P. Handler and Herman T. Blumenthal

Studies Made by Simulating Systole at Necropsy. II. Experiments on the Relation of Cardiac and Peripheral Factors to the Genesis of the Pulse Wave and the Ballistocardiogram
Isaac Starr, T. G. Schnabel, Jr., and R. L. Mayock

Observations on the Hemodynamic Properties of a Thiophanium Derivative, Ro 2-2222 (Arfonad), in Human Subjects
N. S. Assali, Roy A. Douglass, Jr., and Roy Suyemoto

Dye Dilution Curves in Cyanotic Congenital Heart Disease
H. J. Swan, J. Zapata-Diaz and Earl H. Wood

Measurement of Vasoconstrictor Tone in the Extremities in Hypertension
Henry J. Kowalski, Sibley W. Hoobler, S. Donald Mallon and Richard H. Lyons

The Effect of Priscoline on the Clearance of Radiosodium from Muscle and Skin of Man in Normal and Diseased Limbs
Jack Freund, Lawrence H. Wisham and Rosalyn S. Yalow

The Effect of the Frequency Response of Electrocardiographs on the Form of Electrocardiograms and Vectorcardiograms
A. J. Kerwin

Clinical Progress. The Heart in Anemia. William B. Porter and G. Watson James, III

Clinical Conference. The Arterial Spider and Similar Lesions of the Skin and Mucous Membrane
William B. Bean

Abstracts

Books Received

American Heart Association

No. 2
Rheumatic "Activity" as Judged by the Presence of Aschoff Bodies in Auricular Appendages of Patients with Mitral Stenosis. I. Anatomic Aspects
J. P. Decker, C. Van Z. Hawn and S. L. Robbins

Hypertension and Coronary Occlusion
Arthur M. Master

Pulmonary Function in Rheumatic Heart Disease and Its Relation to Exertional Dyspnea in Ambulatory Patients
John R. West, Harry A. Bliss, John A. Wood and Dickinson W. Richards, Jr.
CONTENTS OF VOLUME VIII

A Critical Evaluation of the Hypotensive Action of Hydralazine, Hexamethonium, Tetraethylammonium and Dibenzyline Salts in Human and Experimental Hypertension.........................Alvin P. Shapiro and Arthur Grollman 188


Effect of Dibenzyline on Skin Temperature, Peripheral Blood Flow, and Vasomotor Responses in Normal Patients and Patients with Increased Vasoconstrictor Tone Marvin Moser, Dale Watkins, Neal Morris, Andrew G. Prandoni and Thomas W. Mattingly 224

A Comparison of Direct and Indirect Blood-Pressure Determinations L. N. Roberts, J. R. Smiley and G. W. Manning 232

Parasystole.............................................................Alfred Pick 243

The Effect of a Threshold Electrical Stimulus upon the Repolarization Process of the Left Ventricle of the Intact Dog Heart L. H. Nahum, H. Levine, H. Geller and R. Sikand 253

Atabrine in Ventricular Tachycardia...Antonio M. Samia and Mariano M. Ahmunung 257

The Spatial Orientation of the Plane Including the Mean QRS and T Vector of the Normal Electrocardiogram...........................................Noboru Kimura 261

The Circulatory Response to the Valsalva Maneuver of Patients with Mitral Stenosis with and without Autonomic Blockade...David G. Greene and Ivan L. Bunnell 264

The Kinetocardiogram. I. Method of Recording Precordial Movements E. E. Eddleman, Jr., Kathryn Willis, T. J. Reeves and T. R. Harrison 269

A New Index for Quantitative Ballistocardiography: The Velocity of Body Displace- ment.................................................................Vincenzo Masini and Paolo Rossi 276

Long-Range Observations of Sodium Exchange in Patients with Congestive Heart Failure......................................................John A. Lusk, III, and S. Donald Palmer 282

Clinical Progress. Diagnosis and Prevention of Bacterial Endocarditis Arthur L. Bloomfield 290

Abstracts.................................................................297

American Heart Association...................................................316

No. 3

Mitril Commissurotomy in the Older Aged Patient. An Analysis of Twenty Patients Over the Age of Fifty

O. Henry Janton, Robert P. Glover, and Thomas J. E. O'Neill 321

Tetralogy of Fallot with Unilateral Pulmonary Atresia. A Clinically Diagnosable and Surgically Significant Variant

Alexander S. Nadas, Harold D. Rosenbaum, Martin H. Wittenborg, and Abraham M. Rudolph 328

Rheumatic "Activity" as Judged by the Presence of Aschoff Bodies in Auricular Appendages of Patients with Mitral Stenosis. II. Clinical Aspects

William F. McNeely, Laurence B. Ellis, and Dwight E. Harken 337

Hemodynamic Effects of Valvulotomy in Pulmonic Stenosis

Paul R. Lurie and Harris B. Shumacker, Jr. 345

Further Observations on the Effects of Autonomic Blocking Agents in Patients with
CONTENTS OF VOLUME VIII

Hypertension. II. Hemodynamic, Ballistocardiographic and Electrocardiographic Effects of Hexamethonium and Pentamethonium

David Grob, William R. Scarborough, Albert A. Kattus, Jr., and Herbert G. Langford 352

The Electrocardiogram II. The Normal Configuration and Amplitude

E. E. Eddleman, Jr., Kathryn Willis, Lynn Christianson, J. R. Pierce, and R. P. Walker 370

Studies of Quantitative Ballistocardiography. The Velocity of Body Displacement in Patients with Heart Disease .................. Vincenzo Masini and Paolo Rossi 381

The Electrocardiogram of a Beluga Whale

Robert L. King, James L. Jenks, Jr., and Paul D. White 387


Clinical Conferences. Electrocardiograms of Deceptive Form in Ventricular Hypertrophy ........................................ Charles E. Kossmann 403

Clinical Progress. The Patient with Cardiovascular Disease and Rehabilitation: The Third Phase of Medical Care ........... Joseph G. Benton and Howard A. Rusk 417

Program and Proceedings of the Seventh Annual Meeting of the American Society for the Study of Arteriosclerosis .................................................. 427

Abstracts .............................................................................................................. 457

Book Reviews ........................................................................................................ 477

American Heart Association ............................................................................... 478

No. 4

Reactivation of Rheumatic Fever Following Mitral Commissurotomy

Louis A. Soloff, Jacob Zatuchni, O. Henry Janton, Thomas J. E. O'Neill, and Robert P. Glover 481

Antibiotic Therapy of Bacterial Endocarditis. IV. Successful Short-Term (Two Weeks) Combined Penicillin-Dihydrostreptomycin Therapy in Subacute Bacterial Endocarditis Caused by Penicillin-Sensitive Streptococci

Joseph E. Geraci and William J. Martin 494

The Relation of Age to Certain Electrocardiographic Responses of Normal Adults to a Standardized Exercise .............................. Harold M. Silver and Milton Landowne 510

Age Changes in Heart Rate and Blood Pressure Responses to Tilting and Standardized Exercise ............ Arthur H. Norris, Nathan W. Shock, and Marvin J. Fienost 521

The Lewis A. Connor Memorial Lecture. The Physiology of the Cardiac Output ........................................ W. F. Hamilton 527


Congenital Aneurysm of the Right Sinus of Valsalva, Diagnosed by Aortography

Walther Falholt and Gregers Thomssen 549

Electrocardiographic Leads. I. Introduction .............................................. Richard McFee and Franklin D. Johnston 554

The Electrocardiogram. III. The Distribution of Forces over the Anterior Chest

E. E. Eddleman, Jr., and Kathryn Willis 569

A Method of Securing the Direct Body Ballistocardiogram by Means of a Microscope Giving a Record Readily Calibrated ................. E. W. Bixby and C. B. Henderson 578

Torsion Ballistocardiography: With Special Reference to Patterns in Surgically Amenable Cardiovascular Diseases .................... Kurt R. Reissmann and E. Grey Dimond 585

The Significance of the Intermediate Korotkoff Sounds ........................... Simon Rodbard 600
CONTENTS OF VOLUME VIII

Clinical Progress, Vectorcardiography... G. E. Burch, J. A. Abildskov and J. A. Cronvich 605
Abstracts ........................................................................................................... 614
Book Reviews ................................................................................................. 634
American Heart Association .............................................................................. 639

No. 5

The George E. Brown Memorial Lecture. Some Chemical Factors in the Pathogenesis of Atherosclerosis... David P. Barr 641
Facts and Fallacies Regarding the Blood Pressure of Different Regional and Racial Groups... Robert P. Bays and Nevin S. Scrimshaw 655
Platelet Thrombosis Syndrome... Philip S. Vassar and David M. Spain 664
Studies on the Control of Hypertension by Hyphex. I. Effects on Blood Pressure Henry A. Schroeder, John D. Morrow and H. Mitchell Perry, Jr. 672
Mechanical and Myocardial Factors in Chronic Constrictive Pericarditis Réjane M. Harvey, M. Irene Ferrer, Richard T. Cathcart, Dickinson W. Richards and André Cournand 695
Further Considerations on the Indications for the Limitations of Direct Surgery in Arteriosclerosis... William S. Dye, John H. Olwin and Ormand C. Julian 708
Spontaneous and Induced Variations in Serum Lipoproteins H. L. Chandler, E. Y. Lawry, K. G. Potee and G. V. Mann 723
Magnetic Tape Recording Electrocardiograph William L. Proudfoot and Joseph F. Dobosy 735
A Ballistocardiographic Study of Healthy Young Adult Males William B. Abrams and Herbert D. Edger 738
Thiamine Deficiency in Organic Heart Disease Michael G. Wohl, Charles R. Shuman, Richard Turner and John J. Fittipaldi 744
Pattern of Failure of the Homografted Canine Heart Sigmund A. Wesolowski and John F. Fennessey 750
Clinical Progress. Treatment of Cardiac Arrhythmias... David Scherf 756
Clinical Conferences. Congestive Heart Failure Induced by Primary Systemic Amyloidosis: A Diagnostic Problem Raymond D. Pruitt, Guy W. Daugherty and Jesse E. Edwards 769
Abstracts ........................................................................................................... 779
American Heart Association .............................................................................. 799

No. 6

The Electrocardiographic Pattern of Hypopotassemia with and without Hypocalcemia Borys Surawicz and Eugene Lepeschkin 801
CONTENTS OF VOLUME VIII

Studies on the Control of Hypertension by Hyphex. II. Toxic Reactions and Side Effects..............John D. Morrow, Henry A. Schroeder and H. Mitchell Perry, Jr. 829

Newer Drugs in the Treatment of Hypertension. I. Use of Hexamethonium Salts
Homer A. Sieber, Keith S. Grimson and Edward S. Orgain 840

Problems in the Diagnosis and Surgical Treatment of Pulmonic Stenosis with Intact Ventricular Septum...John W. Kirklin, Daniel C. Connolly, F. Henry Ellis, Jr.,
Howard B. Burchell, Jesse E. Edwards and Earl H. Wood 849

Orthostatic Factors in Pulsus Alternans
Ben Friedman, William M. Daily and Roy S. Sheffield 864

Effects of Papaverine upon Ectopic Ventricular Tachycardia Produced by Myocardial Infarction...A. Sidney Harris, Antonio Estandita, Abdo Bisteni and Herbert T. Smith 874

Evaluation of Routine Serial Fluoroscopic Examinations of the Heart in the Posteroanterior and Oblique Views at Specific Degrees of Rotation. With Special Reference to the Angle of Clearance of the Left Ventricle
May G. Wilson, Nathan Epstein, Helen N. Helper and Katharine Hain 879

Heart Force Effects of Sympathomimetic Amines as a Basis for Their Use in Shock Accompanying Myocardial Infarction
Peter C. Gazes, Leon I. Goldberg and Thomas D. Darby 883

Respiratory and Circulatory Studies of Patients with Mitral Stenosis
Pier C. Curti, Goodman Cohen, Benjamin Castleman, J. Gordon Scannell,
Allan L. Friedman and Gordon S. Myers 893

Further Studies in High Fidelity Electrocardiography. Myocardial Infarction
Paul H. Langner, Jr. 905

Some Requirements in Equipment and Technics for Vectorcardiography
James A. Cronich, George E. Burch and J. A. Abildskov 914

Clinical Progress. The Normal Electrocardiogram............Charles E. Kossmann 920

Abstracts................................................................. 937

Book Reviews.......................................................... 957

American Heart Association........................................... 958
CONTENTS
INDEX ISSUE

THE ELECTROCARDIOGRAPHIC PATTERN OF HYPOPOTASSEMIA WITH AND WITHOUT HYPOCALCEMIA ................. Borys Surawicz and Eugene Lepeschkin 801
STUDIES ON THE CONTROL OF HYPERTENSION BY HYPHEX. II. TOXIC REACTIONS AND SIDE EFFECTS
John D. Morrow, Henry A. Schroeder and H. Mitchell Perry, Jr. 829
NEWER DRUGS IN THE TREATMENT OF HYPERTENSION. I. USE OF HEXAMETHONIUM SALTS ............... Homer A. Sieber, Keith S. Grimson and Edward S. Orgain 840
PROBLEMS IN THE DIAGNOSIS AND SURGICAL TREATMENT OF PULMONIC STENOSIS WITH INTACT VENTRICULAR SEPTUM ... John W. Kirklin, Daniel C. Connolly, F. Henry Ellis, Jr., Howard B. Burchell, Jesse E. Edwards and Earl H. Wood 849
ORTHOSTATIC FACTORS IN PULSUS ALTERNANS
Ben Friedman, William M. Daily and Roy S. Sheffield 864
EFFECTS OF PAPAVERINE UPON ECTOIC VENTRICULAR TACHYCARDIA PRODUCED BY MYOCARDIAL INFARCTION
A. Sidney Harris, Antonio Estandia, Abdo Bisteni and Herbert T. Smith 874
EVALUATION OF ROUTINE SERIAL FLUOROSCOPIC EXAMINATIONS OF THE HEART IN THE POSTERO-ANTERIOR AND OBLIQUE VIEWS AT SPECIFIC DEGREES OF ROTATION. WITH SPECIAL REFERENCE TO THE ANGLE OF CLEARANCE OF THE LEFT VENTRICLE
May G. Wilson, Nathan Epstein, Helen N. Helper and Katharine Hain 879
HEART FORCE EFFECTS OF SYMPATHOMIMETIC AMINES AS A BASIS FOR THEIR USE IN SHOCK ACCOMPANYING MYOCARDIAL INFARCTION
Peter C. Gazes, Leon I. Goldberg and Thomas D. Darby 883
RESPIRATORY AND CIRCULATORY STUDIES OF PATIENTS WITH MITRAL STENOSIS
Pier C. Curti, Goodman Cohen, Benjamin Castleman, J. Gordon Scannell, Allan L. Friedlich and Gordon S. Myers 893
FURTHER STUDIES IN HIGH FIDELITY ELECTROCARDIOGRAPHY. MYOCARDIAL INFARCTION ........................................... Paul H. Langner, Jr. 905
SOME REQUIREMENTS IN EQUIPMENT AND TECHNICS FOR VECTORCARDIOGRAPHY
James A. Crowe, George E. Burch and J. A. Abildskov 914
CLINICAL PROGRESS. THE NORMAL ELECTROCARDIOGRAM ....Charles E. Kossmann 920
ABSTRACTS ................................................................. 937
BOOK REVIEWS ............................................................. 957
AMERICAN HEART ASSOCIATION ........................................ 958