Robert Hebard Bayley

1906-1969

Dr. Robert H. Bayley, noted cardiologist, and Professor of Medicine at the University of Oklahoma Medical Center died April 11, 1969, at the age of 62 following vascular surgery.

Dr. Bayley was born in Paterson, N. J., and received the degrees of Bachelor of Science and Doctor of Medicine from Emory University. Following his internship and residency training at the University Hospital, Ann Arbor, Mich., he became interested in the application of mathematical principles to electrocardiography and became a lifelong friend and collaborator of Frank N. Wilson whom he greatly admired.

His first paper in electrocardiography, "Frequency and Significance of Right Bundle-Branch Block," was published in 1934. It had been preceded in the literature by papers on "Right Aortic Arch" (1932), "Dynamic Dilatation of the Thoracic Aorta'' (1933), and "Thyroid Crisis" (1934). After four years at Ann Arbor, he was appointed as a Resident Physician at the Leahy Home Tuberculosis Sanatorium, Honolulu. During this year he began his self-training in mathematics. In 1936, he accepted an Instructorship in Medicine at the Louisiana State University. In 1939, the first papers relating to the mathematical exposition of the electrocardiogram appeared. They were: "Fundamental Relations of the Instantaneous Electrical Axis of Cardiac Accession," and "Potential Produced by Cardiac Muscle, a General and a Particular Solution." In 1944, he left an Associate Professorship in New Orleans,



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to join the faculty of the University of Oklahoma as Professor of Medicine and Director of the Heart Station. At the time of his death he was serving as the George L. Cross Research Professor of Medicine and Director of the Biophysics Section of the Department of Medicine.

During his academic years, Dr. Bayley published many notable contributions to electrophysiology and electrocardiography. "On Certain Applications of Modern Electrocardiographic Theory to the Interpretation of Electrocardiograms which Indicate Myocardial Disease," published in the AMERICAN HEART JOURNAL in 1943, has become a classic. Several observations on injury and ischemic effects of coronary occlusion were published in the years 1944 to 1946. After the paper "Peri-infarction Block" was published in 1950, he devoted most of the following years to analyses of exploratory lead systems, the "zero potential," and the electric field produced by arbitrary dipoles in models of circular and elliptical shape. Problems of nonhomogeneity attracted his attention later and became the bases of his most recent publications. Since 1950, he had published 16 papers reflecting his interest in these biophysical problems.

Dr. Bayley was a member of many scientific societies and a recipient of numerous national and international awards. He was a member of the original research committee of the American Heart Association and was instrumental in establishing many of its present policies. He was one of the first Established Investigators of the American Heart Association and, in 1959, he received a citation for distinguished service to research from this organization. He was a founding member of the Southern Society for Clinical Investigation. He was an Honorary Fellow of the American College of Cardiology.

"Bill" Bayley's many friends and associates will miss greatly the presence of his quiet enthusiasm, modesty, and genius. His clinical acumen was superb, and tales of his diagnoses from the electrocardiogram and at the bedside are legendary. He had an abiding personal interest in his friends, students, and associates. He was a gifted teacher with an uncanny ability for analysis and synthesis which served as a constant stimulus to his students. His research efforts were marked by precision, complete honesty, and originality. His devotion to his research endeavors was at times all-consuming, sometimes to the discomfiture of his less well-informed colleagues. He frequently used his friends as a sounding board for ideas which in their mathematical complexity were clear only to their originator.

Ironically, he suffered from the same diseases for which he helped bring about better understanding. In recent years he was slowed down considerably by two episodes of myocardial infarction and severe intermittent claudication. Typically, few people knew of his affliction.

An avid golfer in his younger years, he later became an accomplished sculptor. He found relaxation in classical music.

Throughout his career, he was helped by the constant devotion of his wife Martha ("Martie") who survives him. There are two children, Norman and Phyllis. Sharing their grief is a wide circle of friends and colleagues.

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