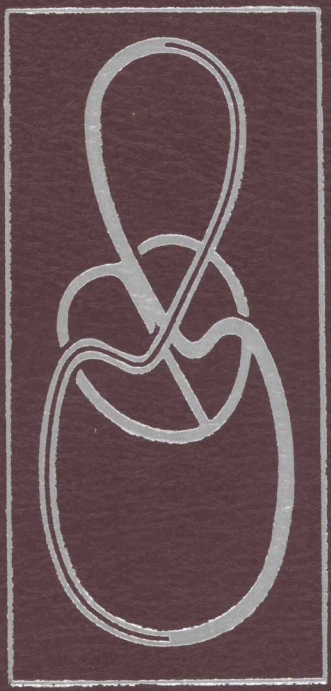
ADVANCES IN THE MANAGEMENT OF Cardiovascular Disease

William T. Foley, M.D.



VOLUME 1

Advances in the Management of Cardiovascular Disease

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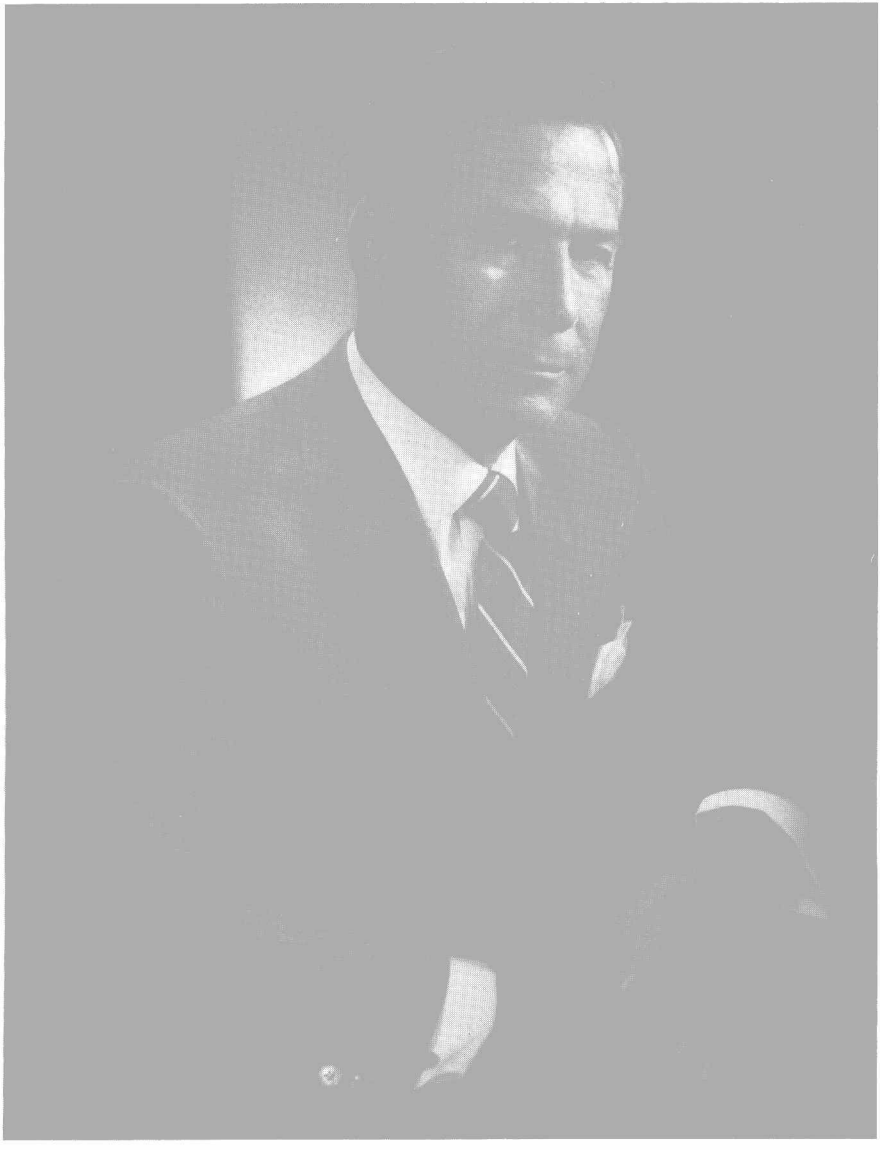

WILLIAM T. FOLEY, M.D.

Editor's Preface

In planning this volume, it has been my intent to consider vascular conditions or disease in the broadest context possible, including coronary artery disease, cerebral vascular disease, thromboembolism, lymphatic disorders and hypertension. I have attempted to present the diverse viewpoints of my highly esteemed colleagues on a number of topics where the etiology of the disease may be uncertain. In the case of atherosclerosis, for example, there have been extensive studies from the viewpoint of lipid dyscrasia, but this view is challenged by both Sir George Pickering and George Burch, and even the geneticist, Alexander Bearn, has much to say on the subject.

An approach that we trust will prove entertaining and incisive has been used in 11 of the 36 chapters included. This involved a visit and interview with the particular authority involved – an interview in which the editor had the great pleasure of asking very pointed questions of such great minds as Michael George Burch, Alexander Bearn, Tom Pickering and his father, Sir George, Claude Bouvier, Andreas Grüntzig and Arnold Kappert.

Of particular interest, I believe, will be the "regional" papers that have been included. Urdaneta and Maldonado discuss the particular problems high altitudes cause patients with vascular disease in Colombia, de Mello considers the problems of portal hypertension from Schistosomatic infections in Brazil and particular vascular problems in Mexico, Argentina, Belgium, Japan and India are discussed. Many contributions resulted from discussions at the Europeon-American Symposium of Venous Disease in Zurich – papers such as the one by Bouvier on work that indicates that varicose veins are a metabolic disorder.

For those curious about the newer techniques of heart transplants, there is a fascinating paper by Christiaan Barnard on his supplementary (heterotropic) heart transplants. Similarly, one will find papers on the surgical treatment of cerebral vascular disease by such authorities as Rob, deBakey and Perry, and papers on arterial surgery by Dale, deBakey and Lord. Venous surgery is considered by Barker, Cranley, Johnson, Lofgren and

Mandiola. The most revolutionary "advance," percutaneous transluminal arthroplasty, is discussed by Dotter and Grüntzig.

The inclusion of diagnostic techniques, both invasive and non-invasive, should be of interest to all primary care physicians as well as cardiovascular specialists. New and much improved non-invasive techniques are discussed by Winsor, Sumner, Lambeth, Hirsch and Hull.

Those interested in the "medical" aspects of vascular disease will, we believe, find the papers by Kakkar, Wessler, Bang and Wright enlightening. Similarly, practitioners interested in high blood pressure will find stimulating and provative thoughts in the works of Pickering, Page, Laragh and Vazifdar.

Although the reader may feel that certain aspects of this broad field have been slighted or certain great centers or specialists overlooked, it is the editor's hope and desire that what is included here will be of interest and will broaden the knowledge and horizons of all readers and that future volumes will cover any "deficiencies" that were unavoidable in this first volume.

This work, which has brought me intellectual stimulation as well as the pleasure of association with great colleagues, has been aided by the skill of Mary Carpenter, our medical editor at New York Hospital, Marianita Sanchez, Herman Davis, Rosemary Gianella, and Dr. Louis Bishop, former president of the American College of Cardiology, who was consulted freely and gave much encouragement.

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Vascular Disease in Japan

Death Rate and Incidence of Cardiovascular Lesions and Ischemic Heart Diseases in Japan

IN THE FIRST PART OF THE 20th century, the death rate of infectious diseases such as pneumonia, bronchitis and tuberculosis had reached 408 for 100,000 population in Japan. By 1951,

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their places were taken by cardiovascular lesions. This dominance has been kept through until today, as shown in Figure 1. Among cardiovascular lesions, the cerebrovascular ones took the top place continuously and were followed by neoplasms and ischemic heart disease disturbances. Next to them, different diseases connected with vascular lesions were also estimated to play an important role in death rate statistics, as reflected by the most recent data (1977) summarized in Table 1.

In a few recent years, the rate of death from cerebrovascular lesions decreased to some extent and those of death from cancer and heart disease increased, but the order of death rate ranged by age group showed some fixed distribution. In 1977, the first position was occupied by accidents from 0 to 25 years of age, by suicide until 30, by cancer until 70 and from 70 to 90 years of age by cerebrovascular lesions. The second and third positions in populations older than 40 were always occupied by cerebrovascular lesions or cancer and heart disease.

The expected average survival age of Japanese was elevated

Fig 1. – Yearly death rate and death portion of disease in Japan (1900 – 1978).

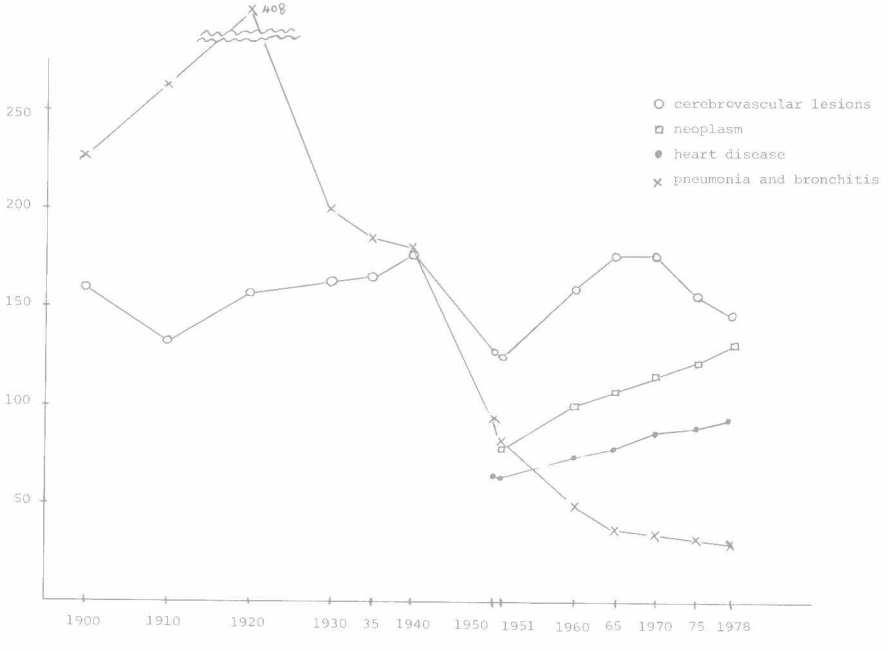

TABLE 1.—DEATH RATE AND DEATH PORTION OF DISEASES IN JAPAN (1977)

ORDER	DISEASES	DEATH RATE	DEATH PORTION (%)
1	Cerebrovascular lesions	149.8	24.6
2	Neoplasms	128.4	21.1
3	Heart diseases	91.2	15.0
4	Pneumonia and bronchitis	28.6	4.7
5	Accidents	26.7	4.4
6	Senile decay	25.0	4.1
7	Suicide	17.9	2.9
8	Hypertensive diseases	17.0	2.8
9	Liver cirrhosis	13.6	2.2
10	Diabetes mellitus	8.4	1.4

up to 72.97 for men and 78.33 for women in 1978 and the actual number of deaths by cerebrovascular lesions and heart disease is still growing.

When the standardized mortality of cerebrovascular lesions and ischemic heart diseases was calculated geographically, by the unit of prefecture, that of cerebrovascular lesions showed a characteristic distribution, according to the latitude, in which the northern districts had higher values than the southern (Fig. 2).

On the other hand, the incidence and standardized mortality of ischemic heart diseases did not show such an apparent tendency, but appeared mixed in distribution, particularly in municipal districts, although still more meteorologic influence was assumed, as illustrated in Figure 3.

As to the cause of these distributions, some epidemiologic and statistical as well as experimental surveys and discussions were carried out. It is not definitely clear yet, but a certain deviated diet with an extraordinarily high content of salt, sugar and fat with rich cholesterol was proposed as an etiologic factor, as were the uptake of certain kinds of proteins or amino acids, and psychological/physical exertion and living customs, particularly in the northern district, which could all contribute to this situation.

Among cerebrovascular lesions, cerebral infarction, particularly thrombosis, prevailed over hemorrhage in 1961 and continued to increase up to a frequency 6 times that of hemorrhage.