

Editorial Views

Physician, Heal Thyself

For the past three years, a little-publicized group with the ponderous title of Inter-Society Commission for Heart Disease Resources (I.C.H.D.) has been engaged in an extensive study of all aspects of prevention, diagnosis, treatment and rehabilitation in the field of cardiovascular and related pulmonary diseases. It will be recalled that the President's Commission on Heart Disease, Cancer and Stroke made its report to President Johnson in December 1964, and that a number of its recommendations were translated into legislation during the spring and summer of 1965. As a first step in the implementation of the law, three groups—one in each disease area covered by PL 89-239, as the legislation is known—were established to develop guidelines to indicate the human and material resources necessary to provide optimal care for patients under the wide variety of regional and community settings which exist within the United States. The group concerned with Cancer has completed its job, and that pertaining to Stroke is just getting under way; I.C.H.D. is in midstream, and its position papers are now beginning to appear.

I.C.H.D. was established under a contract from the Regional Medical Programs Service of the Department of Health, Education and Welfare, and is composed of representatives from 29 leading medical, nursing and allied health organizations, plus a group of experts selected for their special knowledge regarding cardiovascular diseases. The specialty of Anesthesiology is represented by two Directors of the American Board of Anesthesiology. The Commission functions as a series of Categorical Study Groups (Congenital Heart Disease;

Coronary Heart Disease; Hypertension; Pulmonary and Other Cardiovascular Disease; Peripheral Vascular Disease, Thromboembolism and Atherosclerosis; Rheumatic Fever and Rheumatic Heart Disease) and General Study Groups (Epidemiology; Radiology; Rehabilitation; Surgery). The list of its members reads like a *Who's Who* of Cardiology and its related disciplines.

Since coronary heart disease has been identified as the most common cause of death among anesthesiologists,¹ the report on "Primary Prevention of the Atherosclerotic Diseases," collaborated on by the Commission's Atherosclerosis Study Group and Epidemiology Study Group,² should be of more than passing interest to members of our specialty. The report is a classic in its area of cognizance and deserves the attention of every physician, but particularly those physicians who live with so-called major risk factors for coronary heart disease, since it contains important recommendations for modification of those risk factors.

The United States has one of the highest coronary heart disease death rates in the world, and a middle-aged North American male has about one chance in five of developing clinical coronary heart disease before age 60. Studies indicate that 60-70 per cent of deaths from coronary heart disease occur outside the hospital, and that the median time of survival from onset of attack to death for these patients is about 25 minutes. Furthermore, the prognosis for longevity of those middle-aged persons fortunate enough to recover from their first attacks is markedly impaired; they are five times as likely to die within the next five years as those without histories of previous coronary disease, and in most cases death is due to recurrent acute coronary episodes.

* Luke 4: 23.

These facts strongly indicate that progress in controlling atherosclerotic disease is possible only by primary prevention—reducing first clinical episodes by preventing severe atherosclerosis and its complications.

The potential impact of primary prevention of coronary heart disease is immense. It is estimated that in 28 million white males in the age group 35–64 years, 300,000 initial coronary events per year may be expected, with 60,000 deaths. If preventive measures were 100 per cent effective, all 60,000 of these deaths could be avoided; but even if they were only 10 per cent effective, 6,000 deaths per year could be prevented; and if they were 50 per cent effective, 30,000 deaths could be prevented.

The hallmark of atherosclerosis, the major specific type of arteriosclerosis afflicting mankind, is, of course, an accumulation of lipids (cholesterol most prominently) in the walls of medium and large arteries. Detailed data on the relationships of diet, serum lipids, and premature coronary heart disease (before age 60) are available from many studies, and all indicate that high intake of saturated fat and high serum cholesterol levels are associated with high incidence and mortality rates from premature coronary heart disease. The Commission, therefore, believes that very specific dietary modifications must be undertaken to reduce cholesterol intake to less than 300 milligrams per day (the ingestion of less than two eggs a day in visible and/or invisible form as in prepared foods) and to reduce substantially the intake of saturated fats to less than 10 per cent of total calories. This will not only necessitate the development of a comprehensive and sustained public and professional nutrition education program to effect change from the traditional American breakfast of “two-over-lightly” with bacon, but the food industry must somehow be induced or regulated to make available leaner meats, and dairy products, processed meats, frozen desserts and baked goods which are reduced in saturated fats and cholesterol. This will also then necessitate fundamental changes in cattle breeding and feeding practices to develop strains of animals that convert higher proportions of feed to protein rather than fat, and a shift to

range feeding with earlier slaughter of cattle to yield leaner animals—something that the cattlemen are not about to do unless forced. Even FDA, Department of Agriculture, and state and/or local regulations which prohibit making processed meats with vegetable oils must be changed so that the latter are no longer defined as adulterants, and a number of other state and local laws must be changed so that they do not prohibit the use of butter substitutes (which are often fats and oils low in saturated fats and cholesterol) in restaurants and public institutions for table spreads, shortenings, cooking, and salad dressings.

Impressive clinical and experimental data also support the conclusion that hypertension aggravates the atherosclerosis process particularly in the presence of hyperlipidemia, and that there is a significant correlation between blood pressure and the subsequent development of coronary heart disease. At each higher step of the blood pressure scale, risk is increased. Drug treatment of hypertension can produce marked reductions in morbidity from hypertensive complications, but pharmacologic control of elevated blood pressure requires both identification of the hypertensive at risk and adequate drug administration. A supplementary measure is obviously the adjustment of caloric intake to achieve and maintain optimal weight, since the correlation between obesity and hypertension is well documented.

The third of the triad of major risk factors is cigarette smoking, and the Commission recommends in the strongest language that high priority be given to the elimination of this as a national habit. Two large prospective studies are cited as evidence, and the suggested preventive measures do not pussyfoot around the problem: there should be strict restraints on advertising and the sale of cigarettes; cigarette vending machines should be removed from all public buildings; the prohibition against smoking in large meetings and mass transit facilities should be vigorously enforced; revenues from intentionally progressive increases in taxes on tobacco should be earmarked for smoking control programs; the current large government subsidies for tobacco cultivation and export should cease forthwith;

and plans should go forward at the highest levels of authority for the orderly phase-out of the cigarette industry.

The Commission comments also on the association of certain other risk factors—diabetes mellitus and asymptomatic hyperglycemia, sedentary living without regular exercise or physical activity, psychosocial tensions related to personal life situations or those inherent in cultural circumstances, and a family history of coronary heart disease—but it is obvious that the evidence is less compelling in these areas and that the Commission considers that hypercholesterolemia, high blood pressure, and cigarette smoking are the major risk factors for premature atherosclerotic heart disease.

The etiologic factors with which the Commission is concerned have received almost unbearable amounts of publicity in the lay press and on radio and television; and certainly every physician is, by now, more than well

aware of the triad of cholesterol, blood pressure, and cigarette smoking. However, it is unfortunate, but probably true, that the far-reaching socioeconomic changes implicit in the necessary preventive measures envisioned by the Commission are unlikely of adoption in the America of today.

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References

1. Bruce DL, Eide KA, Linde HW, *et al.*: Causes of death among anesthesiologists: A 20-year survey. *ANESTHESIOLOGY* 29:565, 1968
2. Inter-Society Commission for Heart Disease Resources: Primary prevention of the atherosclerotic diseases. *Circulation* XLII, December 1970

The Anesthesia Foundation

THE PROGRESS of Anesthesiology in this country has been rapid and stimulating, having a broad impact on the practice of medicine. With the inauguration of formal teaching programs in 1940, many hospitals had residency programs accredited by the American Medical Association. Such programs flourished, and at one time more than 200 institutions offered AMA-approved anesthesia instruction. However, the need for residents far exceeded the available supply. Further, there were a number of outstanding interns who could not finance residency experience. It was at this point that a group of senior anesthesiologists organized the Anesthesia Foundation, the initial and most important function being the provision of scholarships for exceptional students in dire need of support.

During the 1956 ASA meeting in Kansas City, the Executive Committee considered the advisability of setting up a program to serve as a repository for tax-exempt funds. This was a projected plan requiring legal counsel;

accordingly it was believed that a foundation, separate and apart from the ASA, might present certain distinct advantages. Thus, the Anesthesia Memorial Foundation was founded in 1956, and six years later the name was changed to "Anesthesia Foundation." Members of the Board were dedicated to the concept of contributing their time and effort without remuneration, to assure success of this undertaking. Members of the ASA who were approached to serve on the original Board of Trustees were either former presidents of the ASA or leaders in other anesthesia organizations. In the selection of Board members, emphasis was also placed upon geographical representation. All expense incurred by attendance at meetings of the Anesthesia Foundation were and continue to be carried as a personal obligation of each Trustee.

The original group consisted of Dr. John S. Lundy, President; Dr. Charles F. McCuskey, Vice President; Dr. B. B. Sankey, Treasurer; Mr. John Lansdale, Jr., Secretary; Dr. Urban