

Cardiovascular Problems

Perspectives and Progress

Edited by

Henry I. Russek, M. D.

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PREFACE

*"Problems are not solved on the level of problems.
Analyzing a problem to find its solution is
like trying to restore freshness to a leaf by
treating the leaf itself, whereas the solution lies
in watering the root."*

The ideal treatment for coronary heart disease lies in its prevention. In the absence of effective preventive therapy for coronary atherosclerosis, numerous clinical problems will continue to challenge the practicing physician in both the diagnosis and management of the coronary patient. Newer techniques and trials now being employed by experts in the field in their efforts to deal with problems seen in office and hospital practice have excited wide clinical interest.

But, as with all imaginative innovations in medical science, enthusiasm initially tends to outstrip logic. In the last decade, for example, notable advances such as the acute coronary care concept, human cardiac transplantation, and coronary bypass surgery have been tested in the crucible of time and experience, and each is emerging stripped of its original charisma as a panacea. Yet each of these methods of treatment has added a new dimension, with specific indications for their use, in management of those patients.

A balanced view in the application of operative techniques can be obtained only by a constructive interaction between internist and surgeon with the aid of fundamental research in fields such as epidemiology, physiology, anatomy, pathology, and biochemistry. It is the purpose of this symposium, as for each of the six which have preceded it since 1968, to provide a forum for the exchange of scientific observation and experience through which one may obtain a better understanding of disease processes and practical diagnostic and therapeutic techniques.

This publication represents the edited proceedings of the American College of Cardiology-New York Medical College Symposium, "Cardiovascular Problems: Perspectives and Progress," held at the New York Hilton Hotel, December 13-15, 1974. The symposium was dedicated, as is this book, to a distinguished cardiologist, Dr. Eliot Corday, whose name has become synonymous with the International Circuit Course Program of the American College of Cardiology. This educational project was conceived, initiated, and nurtured by Dr. Corday,

and it has remained unrivaled in American Medicine since its inception 14 years ago. During this time, the American College of Cardiology has sent faculties to 37 countries throughout the world. It is clearly a tribute to Dr. Corday's outstanding talent and dedication that this potent medium could be established for furthering medical education and international understanding throughout the world. The numerous contributions of Dr. Corday to cardiovascular research and to teaching, his leadership in the American College of Cardiology, and his influence in shaping national policy in medicine are clearly detailed by his close friend and colleague, Dr. Simon Dack, in the dedication pages of this book.

The American College of Cardiology and the New York Medical College are indebted to all members of the faculty for their invaluable contributions to this symposium. The willingness to share clinical experience and scientific knowledge with colleagues and students without remuneration is in keeping with the highest tradition of the medical profession.

We wish to extend our deep appreciation to the National Program Committee for Continuing Medical Education of the American College of Cardiology for the confidence implied in the earnest support of our efforts. Mr. William Nelligan, Executive Director of the American College of Cardiology, and his skilled associates, Mary Anne McInerney and Patrick Ziarnick, have continued to provide superior administrative assistance as in previous years. The Russek Foundation, Inc., served as a co-sponsor of the symposium and assisted in preparation of the scientific program. The capable administrative assistance of Marie Parlante in many aspects of the work is hereby acknowledged.

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The generosity of these organizations has served the public interest.

Henry I. Russek, M.D., F.A.C.C.

DEDICATION

The Eliot Corday Symposium honors a distinguished cardiologist. I have known him intimately since 1947 when he began his residency in cardiology in my department at the Mount Sinai Hospital in New York. A Canadian by birth, he had just come out of the Royal Canadian Air Force. I had just rejoined Arthur Master's department at Mount Sinai after discharge from the U.S. Army, and this was the start of a close friendship and collaboration which has endured to the present time.

Corday's first assignment was to study the effects of hemorrhage and anemia on the coronary circulation and myocardium, a part of our research project on coronary insufficiency. Demonstrating his great passion for research, even during his training period, he accumulated a large quantity of clinical material. When he finished his training, he joined Myron Prinzmetal's department in Los Angeles, where he began his own studies on the coronary circulation in the dog and the effect of acute ischemia, shock, and heart failure on myocardial structure and function. Eliot and I carried on a transcontinental writing project and finally produced a paper based on his work on coronary insufficiency due to hemorrhage which was published in the *American Heart Journal* in 1949. I thought it would be his first published paper, but it turned out to be about his 10th because he was already traveling all over the country to various scientific meetings, showing movies and exhibits on the effects of coronary ligation and ischemia on the myocardium.

Since those pioneering days, there has been no area in cardiology that has not been influenced and enhanced by Eliot Corday's research and teaching activities. Radiocardiography to study coronary perfusion of the myocardium is now coming into its own with new techniques for radioscanning. Cardiac arrhythmias were the subject of an important monograph and a textbook on mechanisms, diagnosis, and treatment. The effect of cardiac arrhythmias on the coronary, cerebral, renal, and mesenteric circulation helped to elucidate the mechanisms of vascular insufficiency and shock. The concept of cerebral vascular insufficiency, the small stroke, arose from these studies and led logically to the concept of mesenteric vascular insufficiency, that the "acute abdomen" caused by intestinal infarction can occur from reduced cardiac output and vascular insufficiency in the absence of mesenteric thrombosis. Also in the fields of arrhythmias, Holter monitoring, so popular and essential today, had its origins in Corday's research,

leading to the concept that unsuspected bradycardia and arrhythmias may be the cause of syncope and cerebrovascular insufficiency.

The fields of cardiac resuscitation and coronary care owe much to Corday's work. At present, we all take for granted that the trained nurse in the coronary care unit can diagnose a life-threatening arrhythmia and can treat ventricular fibrillation promptly by dc defibrillation—a result of the insistence of Corday and others that the coronary care unit nurse must be trained in the techniques of arrhythmia detection and cardiac resuscitation. He organized the Bethesda Conference on the 'Coronary Care Unit, which had the greatest impetus on Congress to provide funds for the National Heart Institute to support this training program.

In the field of circulatory assistance, an important area of research in the past 10 years, Corday and his young men in the laboratory devised a technique for ascending aorta synchronized pulsation. He published many studies and co-authored a book on myocardial infarction, the subject he started with at Mount Sinai in the 1940's. He studied the mechanism and treatment of experimental and clinical shock and heart failure, and the effects of coronary revascularization. His current interest is in the field of preservation of the ischemic myocardium, a subject of a symposium to be published in the *American Journal of Cardiology*.

To cap his contributions to cardiology are his activities in international education. He organized the International Circuit Courses of the American College of Cardiology, headed by teams of cardiologists and surgeons, which have spread the recent advances in cardiology to the far regions of South America, Europe, Africa, and Asia. I remember well my first trip with him as a member of the first College team which held courses in Manila and Tapei in 1961. The team also included E. Grey Dimond, George Burch, and C. Walton Lillehei. It is a mark of Eliot's drive and passion for teaching that when the team broke up after 2 weeks of arduous travel and lecturing, the vacation trip Eliot and I had planned for our wives became another working vacation. We gave more courses and lectures in Toyko, Bangkok, and Hong Kong. The tremendous success of the International Circuit Courses is due to Eliot's unique capacity to weld the efforts of the State Department, Congress, other government agencies, as well as the American College of Cardiology. In every country visited, he not only elicited but insisted on the complete cooperation of its government, national health agency, and medical societies. Only one man was able to plan in advance and make each overseas trip a success, and that was Eliot Corday. For all these efforts in clinical research and education, he has received numerous citations and awards for distinguished service from the American College of Cardiology, The American Heart Association, and many foreign national and international heart associations.

When Eliot has introduced me at scientific programs he has referred to me as his teacher. Although I am proud to have played a small part in his early training at the Mount Sinai Hospital, I believe that my greatest contribution to his career and to American cardiology was to sponsor him as a Fellow in the American College of Cardiology in the mid 1950's. That was no small feat because I had to

sell him on the idea of joining the College—that is, tell him what we were trying to accomplish, our successes and failures, and our hopes for the future. After many sessions, he decided to join the College in 1955, a step which not only enhanced his own career but also contributed to the growth and stature of the College. It was and remains a very successful and exciting partnership. He became so active in its affairs that he attained election to the College presidency in 1965, and as honorary trustee and member of many committees he has continued to be active in all its affairs. Not only was he awarded its Distinguished Fellowship but he also received a Presidential Citation for his efforts. His drive, statesmanship, and initiative have helped to elevate the College to the high position it now holds in American cardiology. I therefore take great pride in saluting my good friend and former student, Eliot Corday, as we open this Symposium sponsored by the American College of Cardiology.

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The Normal Circulatory Apparatus

