

Preface

In the past century, preventive cardiology has been in a defensive mode. Since James Herrick first reported Clinical Features of Sudden Obstruction of the Coronary Artery Disease in JAMA 1912, and Paul Dudley White wrote the textbook of Heart Disease in 1930 and helped create cardiac care units, cardiovascular medicine for the most part has focused on the detection and treatment of symptomatic coronary artery disease. Although Dr. White recognized the importance of preventive cardiology by championing the Framingham Heart Study and establishing the American Heart Association, his dream of “mastering presenile atherosclerosis” is still unrealized. Over the past 50 years, the Framingham study defined the traditional cardiovascular risk factors of smoking, high serum cholesterol, high blood pressure, diabetes and lack of exercise, and the American Heart Association raised public awareness for early detection and treatment of these risk factors. However, atherosclerotic cardiovascular disease has remained the number one killer, diabetes and obesity have wildly increased, and out-of-hospital sudden cardiac deaths is still high and is increasing in women.

New multipronged preventive strategies must be adopted to address these failures, beginning with a change in mindset from a passive defensive to an active offensive mode. The war against sudden coronary death must be shifted from hospitals to homes, and from advanced cardiac care units to primary care offices. In making such a shift, we must walk the walk, as we talk the talk. Attention must shift from the less effective and more expensive treatment of symptomatic atherosclerosis to the early detection and aggressive treatment of asymptomatic atherosclerosis.

Existing risk factor based stratifications e.g., the Framingham Risk Score, have proven grossly inadequate, particularly in identifying the vulnerable patients who are at risk of a near term future event. The traditional methods must be replaced with the more accurate, yet underutilized, measures of subclinical atherosclerosis, notably coronary artery calcium scanning and carotid intima-media thickness measurement. Treatment of asymptomatic patients must be based on the severity of atherosclerosis regardless of the risk factors. The SHAPE initiative is an effort to move in this direction.

In this book, leading cardiovascular physicians and investigators present the latest developments that illuminate the path to translating Dr. White’s dream into reality. We must, and I believe we can, master asymptomatic atherosclerosis to accomplish the mission of eradicating heart attacks in the twenty-first century.

Houston, TX

Morteza Naghavi, MD