Cardiovascular Disease (CVD) and Diabetes—Know Your Risk—Is it Time for a Paradigm Shift?

CVD is a major complication of diabetes and the leading cause of early death among people with diabetes—about 65 percent of people with diabetes die from heart disease and stroke. Annually in the United States, 1,000,000 people will suffer a myocardial infarction: one-third of those will occur in people who have already suffered an event. Modification of traditional risk factors, such as smoking cessation, decreasing blood pressure, and lowering of cholesterol in high-risk individuals, has resulted in reducing CVD and stroke remarkably. However, the current standard of care using traditional modifiable risk factors alone is frequently inadequate to identify some individuals with CVD. Therefore, it is important to not rely solely on risk factor modification when assessing for CVD, but also to incorporate a disease platform. A new paradigm focusing on the disease (atherosclerosis) is necessary. Noninvasive endothelial testing [coronary calcium score (CCS), carotid intima media thickness (cIMT)], genetics assessment [Apolipoprotein E (ApoE), kinesin-like protein 6 (KIF6), 9 region p21 locus (9p21), lipoprotein(a) (LPA), and haptoglobin genotype (Hp 1-1, Hp 1-2, Hp 2-2)], and measurement of major biomarkers [F2-Isoprostanes (F2-IsoPs), high-sensitivity C-reactive protein (hs-CRP), urine albumin creatinine ratio (UACR), myeloperoxidase (MPO), lipoprotein-associated phospholipase A2 (Lp-PLA2), fibrinogen, and homocysteine (Hcy)] enhance the ability to identify disease (atherosclerosis) earlier. When disease is found, the causes must be identified and treated. A paradigm shift focusing on arteriology (disease platform) is mandated to reduce the high rate of recurrence of CVD and stroke.

Biography

Claude K. Lardinois is Emeritus Professor, University of Nevada School of Medicine in Reno, NV and Medical Director, American Health Care, Rocklin, CA. He earned his medical degree at George Washington University in Washington, DC, and internal medicine residency at Travis Air Force Base, Fairfied, CA. He completed a fellowship in Endocrinology and Metabolism with a focus on insulin research at Stanford University in Palo Alto, CA, under the mentorship of Gerald Reaven, MD. His research interests include work in nutrition, diabetes, hypertension, and dyslipidemia. He has a notable interest in eradicating heart disease, the major cause of death in the US.

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