

What Should We Know About Prevented, Diagnostic, and Interventional Therapy in Coronary Artery Disease

The mortality from ischemic heart disease has decreased in recent years. The better understanding of risk factors associated with development of coronary artery disease has significantly contributed to this decline. Improvements in medical and interventional therapy have reduced the complications associated with acute myocardial infarction as well as revascularization. After the introduction of imaging modalities, the noninvasive characterization of regional function, perfusion and metabolism allowed for more sophisticated tissue characterization to identify reversible dysfunction with high diagnostic and prognostic accuracy. We now can legitimately claim that computed tomography angiography (CTA) of the coronary arteries is available. In the evaluation of patients with suspected coronary artery disease, many guidelines today consider CTA an alternative to stress testing. However the nuclear technique most frequently used by cardiologists is myocardial perfusion imaging (MPI). The combination of a nuclear camera with CTA allows for the attainment of coronary anatomic, cardiac function and MPI from one piece of equipment. Assessing cardiac viability is now fairly routine with these enhancements to cardiac imaging. Traditional coronary angiography presents a variety of limitations related to image acquisition, content, interpretation, and patient safety. Barriers to such improvements include the paucity of clinical outcomes studies related to new imaging technology, the need for physician and staff member training, and the costs associated with acquiring and effectively using these advances in coronary angiography. This issue is full of important information that every cardiologist needs to now.

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