Review compares diagnostic strategies for assessment of coronary artery disease

June 6 2023, by Elana Gotkine

Coronary computed tomography angiography (CCTA) is associated with
a similar risk for cardiovascular death and myocardial infarction as
direct invasive coronary angiography (ICA) for initial assessment of
suspected stable coronary artery disease (CAD), according to a review
published online June 6 in the *Annals of Internal Medicine*.

Andrea Zito, M.D., from the Catholic University of the Sacred Heart in
Rome, and colleagues compared the effect of clinical management and
subsequent health effects of alternative diagnostic strategies for initial
assessment of suspected stable CAD. The strongest evidence was
available for three comparisons: CCTA versus ICA, CCTA versus
exercise electrocardiography (ECG), and CCTA versus stress single-
photon emission computed tomography myocardial perfusion imaging
(SPECT-MPI; four, two, and five trials, respectively).

The researchers found that CCTA was associated with no difference in
cardi ovascul ar death and myocardial infarction compared with direct
ICA referral, but was associated with less index ICA and index
revascularization (relative risks, 0.23 and 0.71, respectively). Compared
with exercise ECG and SPECT-MPI, CCTA was associated with a
reduction in cardiovascular death and myocardial infarction (relative
risks, 0.66 and 0.64, respectively). More index revascularization was
seen in association with CCTA versus exercise ECG (relative risk, 1.78),
but less downstream testing was observed (relative risk, 0.56).

"This *meta-analysis* provides comparative evidence of the relative
performance of individual diagnostic strategies for the initial assessment
of patients with suspected stable CAD," the authors write. "Results'
uncertainty calls for further research to better assess the relative
performance of each diagnostic strategy."

**More information:** Andrea Zito et al, Diagnostic Strategies for the
Assessment of Suspected Stable Coronary Artery Disease, *Annals of