EP7

Abnormal 256-Row Coronary CTA Predicts High Likelihood for Revascularization

Rubinshtein, Ronen[1]; Petcherski, Oleg[1]; Gaspar, Tamar[2]; Peled, Nathan[2]; Jaffe, Ronen[1]; Molnar, Ron[3]; Lewis, Basil S.[1]; Halon, David A.[1]
[1]Lady Davis Carmel Medical Center, Cardiovascular Medicine, Technion - IIT, Haifa, Israel; [2]Lady Davis Carmel Medical Center, Radiology, Technion - IIT, Haifa, Israel; [3]Lady Davis Carmel Medical Center, Radiology, Haifa, Israel

Background: Rate of revascularization following invasive coronary angiography (ICA) was recently reported to be low and there is a need for more accurate assessment pre-ICA. Standard 64 row CT scanners have high sensitivity for coronary artery stenosis but may lead to high false positive rates and unnecessary ICA. We assessed the rate of clinically indicated revascularizations among pts with chest pain and no known coronary artery disease (CAD) following coronary CTA (CCTA) with a new generation 256 row scanner.
Methods: During 2 year period 1012 pts with chest pain syndromes and no known CAD were referred for diagnostic 256-row CCTA. Pts with obstructive CAD (>50% diameter stenosis) or uncertain CCTA findings were referred for ICA at discretion of referring physician.
Results: 121 patients (age 59±12 years, 37% female) underwent early ICA (<60 days post CCTA). Obstructive CAD was found on ICA in 82/121 (68%) pts and 71/121 (59%) underwent revascularization (5 CABG, 66 PCI). In 50 pts post CCTA not undergoing revascularization, single vessel disease was present in 11 and no significant narrowings in 39 (calcification leading to misinterpretation in 12 of these).
Conclusions: In pts with chest pain symptoms but no known CAD, the majority of pts referred for ICA following 256 row CCTA required revascularization. The high likelihood of symptomatic pts with abnormal 256-row CCTA to undergo revascularization implies high clinical usefulness and supports expansion of its use in similar patient cohorts.