

Coronary Computed Tomography Angiography Guided Percutaneous Coronary Intervention in Patient with coronary artery disease and Metabolic Syndrome

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Purpose : The Metabolic syndrome (MeS) occurs very frequently in the general population and is associated with coronart artery disease(CAD). Pre-PCI Coronary Computed Tomography Angiography (CCTA) can provide information on the characteristics of coronary plaques and allow pre-PCI planning. This study intended to prospectively evaluate the outcomes of CCTA guided PCI in implantation of stenting in patient with CAD and MeS**Methods:** Consecutive patients who had CCTA and had planned PCI of coronary artery stenosis(CAS). Inclusion criteria included de novo CAS with 75% or more diameter stenosis, and vessel diameter of 2.5 mm to 4.0 mm. All patients had baseline and post-procedural ECG and echocardiogram. Routinely, patients had a CCTA within the first 18 months post-PCI.**Results:** This case-control study included 268 patients diagnosed with CAD. MeS was present in 35 % of patients with severe CAD . There were 104 lesions which were stented with DES of which 50 lesions had soft plaque, 29 lesions had fibrous plaque and 35 lesions had moderate calcified lesions. The procedural success was 98 %. There was no MACE during the PCI procedures or on follow-up. Follow-up period ranged from 9 to 17 months (mean: 12.5 + 4.1 months). Of the 94 patients, 65 underwent imaging with CCTA and there was no restenosis.**Conclusion:** Pre-PCI CCTA might be benefit from interventions aimed at reducing cardiovascular risk with CAD and MeS. and Pre-PCI CCTA assessment of coronary anatomy and plaques, elective planned PCI with DES can be safely performed against PCI complication.