

Outcomes of Patients With Critical Limb Ischemia Who Undergo Routine Coronary Angiography and Subsequent Percutaneous Coronary Intervention

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Background: Critical limb ischemia (CLI) is and is associated with a high risk of subsequent cardiovascular ischemic events. We assessed the strategy of routine coronary angiography in patients with CLI when coronary revascularization is performed based upon clinical judgment.

Methods: A total of 286 consecutive CLI patients were treated by percutaneous transluminal angioplasty (PTA). A total 252 patients who underwent coronary angiography (CAG) before or after PTA were enrolled. Coronary artery disease (CAD) was defined as angiographic stenosis > 50% and significant CAD as > 70% stenosis.

Results: Of the 252 patients who underwent coronary angiography, 167 patients (66.3%) had CAD and 85 patients (33.7%) did not have CAD. Patients in the CAD group were older, had a higher prevalence of diabetes mellitus and cerebrovascular disease, and had a lower mean ejection fraction. At one year, the CAD and non-CAD group had similar rates of repeat PTA (16.7% vs. 17.6%, $p=0.86$), target lesion revascularization (13.7% vs. 14.1%, $p=0.94$), and amputation (19.1% vs. 16.4%, $p=0.60$). In the CAD group, of the 145 patients with significant CAD, percutaneous coronary intervention (PCI) was performed in 114 patients (78.6%). At one year, the CAD and non-CAD group had similar rates of mortality (7.1% vs. 4.7%, $p=0.45$), myocardial infarction (1.1% vs. 0%, $p=0.31$), and PCI (4.7% vs. 1.1%, $p=0.31$).

Conclusion: In addition to optimal medical therapy, a strategy of routine coronary angiography and coronary revascularization was safe and effective. A randomized trial is needed to determine if this is the preferred strategy for these patients.