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## A META-ANALYSIS OF MULTI-VESSEL VERSUS CULPRIT ARTERY ONLY PERCUTANEOUS CORONARY INTERVENTION IN ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Coronary II

Abstract Category: 35. TCT@ACC-i2: Coronary Intervention: Left Main, Multivessel, Bifurcation

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**Background:** Primary percutaneous coronary intervention (PCI) is the most frequently utilized treatment for ST-segment elevation myocardial infarction (STEMI). Current professional society guidelines recommend culprit artery (CA) only PCI. Recent evidence suggests potential benefit of a multi-vessel (MV) PCI strategy among patients with STEMI not complicated by cardiogenic shock.

**Methods:** We systematically searched PubMed, EMBASE, and Cochrane Central Register of Controlled Trials for randomized clinical studies of patients with STEMI not complicated by cardiogenic shock who underwent primary PCI between January 1966 and October 2013. We evaluated all cause and cardiovascular mortality, re-infarction, and repeat revascularization among patients randomized to a MV-PCI strategy compared to a CA-PCI strategy.

**Results:** Four randomized clinical trials with a total of 1044 patients met inclusion criteria. 566 patients underwent multi-vessel PCI and 478 patients underwent culprit artery only PCI. Multi-vessel PCI reduced all the studied endpoints: all cause and cardiovascular mortality, re-infarction, and repeat revascularization (all p-values < 0.05, see Figure 1).

**Conclusion:** This is the largest meta-analysis of randomized controlled trials studying MV-PCI versus CA-PCI in STEMI patients without shock. We found that compared to CA-PCI, a MV-PCI strategy was beneficial in reducing all cause and cardiovascular mortality, re-infarction and the need for repeat revascularization.

