

Impact of Periprocedural Myocardial Infarction following Chronic Total Occlusion Interventions on mid-term Angiographic and 2-year Clinical Outcomes

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Background: Chronic total occlusion (CTO) intervention is still challenging because of the limited procedural success rate and higher recurrence. It is not clear whether the peri-procedural myocardial infarction (P-MI) will significantly impact on angiographic and clinical outcomes following CTO intervention. **Methods:** A total of 131 consecutive pts underwent CTO intervention were divided into P-MI (n=12) and control group (n=119). Six-month angiographic and twelve-month clinical outcomes were compared between the two groups. **Results:** The baseline clinical characteristics were balanced between the two groups except more elderly (66.1 ± 13.0 vs. 60.1 ± 9.4 p=0.034) in the P-MI group. There were higher incidence of perforation (15.3% vs. 0.7%, p=0.0005), dissection (46.1% vs. 18.1%, p=0.018), any hematoma and acute renal failure in the P-MI group. Angiographic outcomes at 6 months were not different between the two groups. However, the incidence of total death, any myocardial infarction (MI) and target vessel revascularization (TVR)-major adverse cardiac events (MACE) were higher in the P-MI group at 24 months (Table). **Conclusions:** P-MI following CTO intervention was associated with higher 2-year mortality, any MI and TVR-MACE. Careful procedure to minimize P-MI will be warranted to get optimal CTO intervention outcomes.