

## Outcomes of Excimer Laser Coronary angiography for Acute Coronary Syndrome During Hospitalization

**Background:** Acute coronary syndrome (ACS) is still one of the life-threatening diseases and has high in-hospital mortality. Excimer laser coronary angiography (ELCA) was developed for percutaneous coronary intervention more than two decades ago. However, the efficacy of ELCA for ACS has not been fully known. **Methods:** We studied consecutive 558 patients with ST-elevation myocardial infarction who were treated by primary PCI between January 2015 and December 2018. Operators decided whether to use ELCA after coronary angiography, the ELCA catheter type and size, and the number of times of ELCA ablation. We evaluated in-hospital death within 30 days from onset and procedural complications. **Results:** Mean age was  $70.0 \pm 12.1$  years, and 77.3% of patients were men. ELCA catheter was used for primary PCI in 226 patients. During follow up period, 8 patients (3.5%) were died with ELCA and 24 patients (7.2%) without ELCA (log-rank  $p = 0.067$ ). Perforation had happened in 4 cases (1.8%) during primary PCI with ELCA. **Conclusions:** Patients with ELCA had a less tendency of death than without ELCA, but selection bias might have a large effect on this results. Further studies are required to establish the efficacy of ELCA.