

A novel stent-less PCI strategy using excimer laser and drug coated balloon for patients with acute coronary syndrome

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**Background:** There are still some unsolved issues related to coronary stent including ISR and stent thrombosis. We examined the usefulness of a novel stent-less PCI strategy using a combination of excimer laser coronary angioplasty (ELCA) and drug coated balloon (DCB).

**Methods and Results:** We assigned consecutive ACS patients to receive the combined therapy with ELCA and DCB (group 1, N=86) or to undergo a conventional PCI with drug-eluting stent (group 2, N=94). Twenty-six (30.2%) patients in group 1 were crossed over to group 2 because they finally received a bail-out stenting. Primary endpoint was MACE including cardiac death, TLR and MI that occurred within 1 year after the procedure, and it was seen with a similar frequency in both groups (11.1% vs. 6.8%; P=0.14). The TLR however was more common in group 1 than group 2 (11.1% vs. 3.0%; P=0.038, Figure).

**Conclusions:** Stent-less PCI with ELCA and DCB was associated with a higher occurrence of TLR, but MACE were not significant different between stent-less PCI and conventional PCI.

