

# Results from the DKCRUSH-V trial reported

31 October 2017

A large-scale randomized trial examining the double kissing (DK) crush two-stent technique compared with provisional stenting (PS) in the treatment of true distal bifurcation lesions of the left main artery, found that the DK crush technique was associated with a lower rate of target lesion failure at one year.

Findings were reported today at the 29th annual Transcatheter Cardiovascular Therapeutics (TCT) scientific symposium. Sponsored by the Cardiovascular Research Foundation (CRF), TCT is the world's premier educational meeting specializing in interventional cardiovascular medicine. The study was also simultaneously published in the *Journal of the American College of Cardiology*.

Provisional stenting (PS) is the most common PCI [technique](#) used to treat distal left main (LM) bifurcation [lesions](#). In previous studies, the double kissing (DK) crush two-stent technique improved clinical outcomes in LM bifurcations compared to culotte stenting and also in non-LM bifurcations compared to PS. The DK crush technique has never been compared to PS in LM bifurcation lesions in a random fashion.

DKCRUSH-V randomized 482 patients from 26 centers in five countries (China, Indonesia, Thailand, Italy, and the United States) with true distal LM bifurcation lesions (Medina 1,1,1 or 0,1,1) to either DK crush stenting (N=240) or PS (N=242). The primary endpoint was the one-year composite rate of target lesion failure (TLF; cardiac death, target-vessel myocardial infarction (TVMI), or clinically-driven target lesion revascularization (TLR)). Routine 13-month angiographic follow-up was scheduled after the primary endpoint was determined.

The technique was successful in 100% of the DK group and 97.1% of the PS group. The study found that TLF within one year occurred in 12 patients (5.0%) assigned to DK crush and 26 patients (10.7%) assigned to PS (HR 0.42, 95% CI

0.21-0.85, P=0.02). Compared to PS, DK crush also resulted in lower rates of TVMI (0.4% vs. 2.9%, P=0.03) and definite or probable stent thrombosis (0.4% vs. 3.3%, P=0.02). Clinically-driven TLR (3.8% vs. 7.9%, P=0.06) and angiographic restenosis within the LM complex (7.1% vs. 14.6%, P=0.10) tended to be more frequent with PS compared to DK crush. There was no significant difference in cardiac death between the groups.

"In this trial, PCI of true distal LM bifurcation lesions using a planned double kissing crush two-stent strategy resulted in a lower rate of TLF at one-year compared to provisional stenting," said Shao-Liang Chen, MD, PhD. Dr. Chen is Director of Cardiology and Cath Lab at Nanjing First Hospital, Vice President of Nanjing First Hospital, Nanjing Medical University, and Professor of Internal Medicine and Cardiology at Nanjing Medical University in Nanjing, China. "These results indicate that double kissing crush may be a better option for these patients."

Provided by Cardiovascular Research Foundation

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