

¹University of Yamanashi

Jyun-Ei Obata¹, Takamitsu Nakamura¹, Yoshinobu Kitta¹, Yukio Saito¹, Kiyotaka Kugiyama¹

Objectives: The aim of this study was to clarify the effectiveness of a collateral channel dilator microcatheter in antegrade percutaneous coronary intervention (PCI) for chronic total occlusion (CTO) of a coronary artery. **Background:** The Corsair microcatheter, which was originally developed as a collateral channel dilator, has been reported to be useful for retrograde CTO-PCI. **Methods:** We compared the success rate of the Corsair microcatheter collateral channel dilator for antegrade CTO-PCI with a previously available microcatheter. We analyzed the data from 27 patients (32 CTOs) using the FinecrossMG (Finecross group) and the data from 31 patients (34 CTOs) using the Corsair (Corsair group). **Results:** There were no significant differences in the clinical or lesion characteristics between the two groups. The success rate for crossing the CTO by the microcatheter was 62.5% in the Finecross group and 85.3% in the Corsair group ($P < 0.05$). After the Corsair crossed the CTO, a 2-mm diameter balloon catheter crossed the lesion in all the cases, but it crossed the lesion in only 17 of 20 cases in the Finecross group (85.0%, $P < 0.05$). The number of balloon catheters used for predilation was significantly less in the Corsair group compared with the Finecross group ($P < 0.05$). **Conclusions:** The success rate for crossing of the microcatheters and the balloon catheters through the occlusion in antegrade CTO-PCI was better with the Corsair than with the FinecrossMG. In addition, the use of the Corsair reduced the number of balloon catheters used for predilation in antegrade CTO-PCI.