

Procedural outcomes of CTO specific intravascular ultrasound Navifocus WR-guided PCI for CTO

Sakurabashi-Watanabe Hospital, Japan

Satoshi Kameda

At percutaneous coronary intervention (PCI) for chronic total occlusion (CTO), the strategy of intravascular ultrasound (IVUS)-guided wiring, that is, leading the second guidewire into the true lumen under observing by IVUS from subintimal space. After the approval of Navifocus WR (Terumo Corp), it has improved IVUS-guided wiring because of its small profile transducer and short length of tip to transducer. **METHODS and RESULTS:** From September in 2012 to March in 2014, in 16 CTO cases, Navifocus WR was used during the antegrade PCI approach after the first guidewire was inserted into the subintimal space. We succeeded the Navifocus WR-guided antegrade wiring in 10 (63%) of 16 cases. In the 6 failure cases, we moved to the retrograde approach, etc. and succeeded the procedure in 15 (94%) of 16 cases. The patients were divided into 2 groups based on the success or failure of Navifocus WR-guided antegrade wiring. The reference diameter was larger in the success group compared to the failure group (2.87 ± 0.73 mm vs. 2.43 ± 0.39 mm, $P=0.2$). Ratio of intima and subintima area at transitional site was higher in the success group compared to the failure group (1.04 ± 0.309 vs. 0.382 ± 0.31 , $P=0.02$). **CONCLUSIONS:** At CTO PCI, the success rate of Navifocus WR-guided wiring was acceptable, but the strategy should be changed if the IVUS-guided wiring is likely not to be effective.