

¹Tokorozawa Heart Center

Satoru Yoneyama¹, Masami Sakurada¹, Hiroataka Esaki¹, Tetuo Yamazaki¹, Hiroshi Doi¹, Takayuki Miyake¹, Shunichi Tsukada¹

Conventional X-ray assessment was difficult due to poor visualization and rapid movement of the stent. DynamicStentView (DSV) is a new application improving X-ray assessment of optimal stent expansion by Shimadzu. A short digital cine-imaging is acquired with location markers of a deflated balloon. This software is sum of each frame based on the markers, to create stent-enhanced images. From May 2012, we used DSV to verify stent expansion in 75 patients. Among them, we report two useful cases. Case 1: A 74-year-old woman was admitted with exertional chest pain. Angiography showed significant narrowing of the proximal LCX. A Cypher Select stent was advanced to the lesion but caught on the proximal calcification site. Checking the stent using DSV, we could detect the dislocation of the stent slipping from the mounted balloon. After advancing another guidewire, the stent site was dilated with a 1.5mm balloon. The dislodged Cypher stent was advanced and implanted at site where we plan. Case 2: A 49-year-old man had been treated with two Promus Element stents at total occlusion site of the proximal LAD two months ago. He suffered recurrent chest pain recently and was readmitted. Follow-up angiography showed a re-occlusion. Thrombectomy was attempted with a 5Fr TERUMO-ST01 catheter using an anchoring-technique, but the catheter could not advance beyond the stent-crossover site. Checking the stent using DSV, we could detect longitudinal stent deformations at two points of the proximal edge and stent-crossover sites. After several dilations, He was treated with bailout-stenting of two Xience PRIME stents.