

**Delayed Iatrogenic Coronary Artery Dissection After Drug-Coated Balloon Treatment**

Michito Murata<sup>1</sup>, Takayuki Yabe<sup>1</sup>, Syouziro Hirano<sup>1</sup>, Kouziro Sakurai<sup>1</sup>, Masakazu Tsubono<sup>1</sup>, Yoshimasa Kozima<sup>1</sup>, Yousuke Komatsu<sup>1</sup>, Shingo Matsumoto<sup>1</sup>, Ryo Okubo<sup>1</sup>, Hideo Amono<sup>1</sup>, Takanori Ikeda

<sup>1</sup>Cardiology, Toho University Omori Medical Center, Japan

We report a case of iatrogenic coronary artery dissection following drug-coated balloon (DCB) treatment. A 65-year-old man experienced exertional chest pain and was found to have significant stenosis in the LAD and LCX on coronary CT. Coronary angiography revealed 75% stenosis in #7 (FFR: 0.76), 90% in #9, #12, and #14. PCI was first performed for LAD without complications, and the patient was discharged. A second PCI was performed for LCX bifurcation lesions using a DCB strategy.

For #14, IVUS revealed eccentric fibrous plaque. A cutting balloon was inflated at low pressure, followed by angiographic confirmation of good dilation. After a 5-minute waiting period, repeat IVUS and angiography showed no vessel injury or recoil. DCB was then applied. Similarly, #12 was treated using the same method, with no complications. Final angiography showed a Type B or less dissection, TIMI 3 flow, and residual stenosis <30%, concluding the procedure successfully.

The postoperative course was uneventful, and the patient was discharged the next day. However, on post-discharge day five, he developed sudden chest pain and was urgently transported. Emergency PCI was performed due to the presence of a coronary artery dissection at the #14 DCB site.

This case highlights the potential for delayed coronary dissection following DCB treatment, despite the absence of visible damage immediately after the procedure. It underscores the importance of careful follow-up and consideration of latent vessel injury after DCB use.