Stent loss in left main - case report

Marin Bistirlić*,

©Zoran Bakotić,

Mira Stipčević,

• Jogen Patrk,

Dražen Zekanović

Zadar General Hospital, Zadar, Croatia **KEYWORDS:** stent loss, percutaneous coronary intervention, complication.

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*ADDRESS FOR CORRESPONDENCE: Marin Bistirlić, Opća bolnica Zadar, Ul. Bože Peričića 5, HR-23000 Zadar, Croatia. / Phone: +385-95-905-9098 / E-mail: marin.bistirlic@qmail.com

ORCID: Marin Bistirlić, https://orcid.org/0000-0002-9213-4174 • Jogen Patrk, https://orcid.org/0000-0002-8165-692X Zoran Bakotić, https://orcid.org/0000-0002-7095-0111 • Mira Stipčević, https://orcid.org/0000-0003-4351-1102 Drazen Zekanović, https://orcid.org/0000-0002-8147-6574

Introduction: Stent loss is challenging and potentially lethal complication of percutaneous coronary intervention. Although the lost stents were successfully retrieved in most cases, stent loss was associated with high rates of complications, such as coronary artery bypass graft surgery, myocardial infarction, and death.

Case report: 56-years-old man who was admitted to Coronary Care Unit due to ongoing chest pain and rise of troponin as a sign of cardiac injury. An electrocardiogram showed a biphasic T wave in leads V2-V5. After standard treatment patient became asymptomatic and the coronary angiography was scheduled for the next morning. Bedside echocardiography was normal. Coronary angiography showed two-vessel disease with a long, significant stenosis of proximal and mid part of left descending artery (LAD) and significant, short stenosis of mid right coronary artery. Percutaneous coronary intervention (PCI) of LAD was planned. A guide catheter "EBU 3.5, 6Fr" in left main (LM), a guidewire "Hi-Torque BMW" was set in distal part of LAD. Predilatation of LAD was performed after which first DE stent "Orsiro, Biotornik" 2.75x30 mm was placed in mid part of LAD. Rest of the mid and the distal part of proximal segment we planned to place another drug-eluting (DE) stent "Ultimaster" 3.5x30mm. After impossibility to place the stent on desired position we planned to do additional redilatations. During withdrawing the stent, it stucked at the tip of the guiding catheter and we noticed stent loss in LM. We decided to put 8Fr introducer in right femoral artery, setting a new guiding catheter "EBU 3.75, 7Fr" in LM. With a new guidewire "Hi-Torque Whisper" we managed to pass through a middle part of the stent and put the guidewire in a distal LAD. A non-compliant balloon 2.5x8 mm was inflated distally to the stent after which we managed to pull/retrieve the stent in quiding catheter. In continuation of procedure the additional predilatation with "scoring balloon" NSE Alpha 2.75x13 mm was preformed after which two stent were placed in the mid and proximal part of LAD (3.0x22 mm, 3.5x18 mm). Final angiography showed good result in LAD and LM. The patient was discharged after 3 days.

Conclusion: Stent loss is uncommon but serious complication of PCI. Several techniques can be applied to resolve the problem (snare, stent crush) but we managed to pull it back in guiding catheter by passing with a new wire through the stent.

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