

A Rare Case of Stent Loss in the Y-Connector During Percutaneous Coronary Intervention

Perkütan Koroner Girişim Sırasında Y-Konnektöründe Stent Kaybına Neden Olan Nadir Bir Olgu

A 75-year-old female patient with a history of hypertension, dyslipidemia, and a previous percutaneous coronary intervention (PCI) in the proximal right coronary artery (RCA) underwent a coronary angiogram via the right radial artery due to worsening unstable angina. The left coronary system was unobstructed, and the RCA exhibited severe de novo stenosis distally, just before the crux. Ad hoc PCI of the dominant RCA was planned. Using a 6Fr Judkins Right 4 (JR4) guide catheter, we crossed the lesion with difficulty using a workhorse guidewire, which was advanced into the posterior left ventricular artery (PLV). Subsequently, a second guidewire was placed in the posterior descending artery (PDA) (Figure 1A). Following pre-dilatation with 1.5 x 20 mm and 2.0 x 20 mm semi-compliant balloons, a 2.75 x 22 mm drug eluting stent (DES) was selected for stenting. However, advancing the stent through the distal part of the guide catheter and delivering it into the RCA proved difficult. Suspecting twisting of the two guidewires as the cause of the failure to advance forward the stent, we removed the second guidewire, but the stent still could not advance further. Consequently, we decided to remove the stent shaft. Upon removing the device, we discovered that the stent was no longer mounted on the balloon. Additionally, the stent balloon appeared mildly inflated. A fluoroscopic scan of the RCA, the aorta, and the guide catheter showed no sign of the stent (Supplementary Videos 1-3). We then removed the guide catheter and guidewire en bloc, suspecting that the stent might be lodged somewhere within the guide catheter.

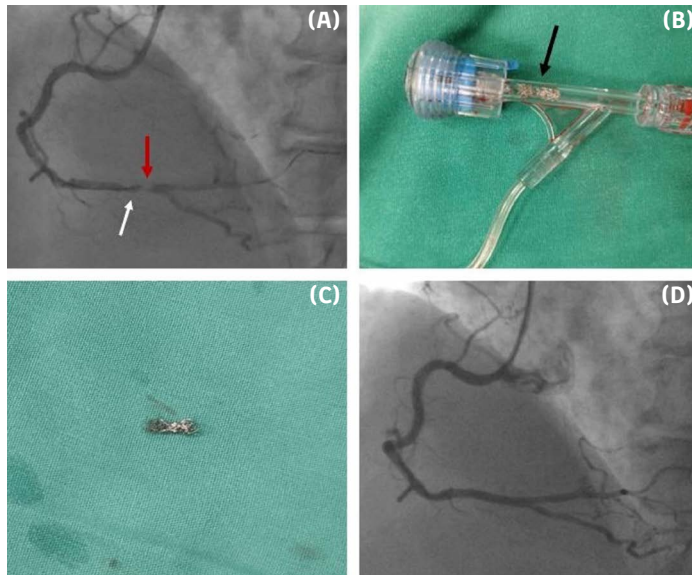


Figure 1. (A) Dominant right coronary artery (RCA) with 95% stenosis before the crux (red arrow). Note the guidewire in the posterior left ventricular artery (PLV). A second guidewire, visible just before the lesion (white arrow), was placed in the posterior descending artery (PDA). **(B)** The dislodged stent was found in the Y-connector (black arrow). **(C)** The dislodged stent, removed and placed on the catheterization laboratory table, appears completely deformed. **(D)** Final angiographic result post-implantation of two drug-eluting stents (DESs).

CASE IMAGE OLGU GÖRÜNTÜSÜ

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Received: May 10, 2024

Accepted: June 14, 2024

Cite this article as: Theodoropoulos KC, Tsakiridis K, Kakderis C, Didagelos M, Kassimis G, Ziakas A. A Rare Case of Stent Loss in the Y-Connector During Percutaneous Coronary Intervention. *Turk Kardiyol Dern Ars.* 2025;53(2):150-151.

DOI:10.5543/tkda.2024.99649



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We decided to continue the procedure with a new guide catheter, and while connecting the Y-connector (push-click type) to the new guide catheter, we identified the lost stent, which was damaged and lodged in the Y-connector (Figure 1B-C). It remains uncertain whether the stent was initially advanced beyond the Y-connector and subsequently pulled back during the removal of the shaft, or if it was damaged and dislodged within the Y-connector during the initial advancement. Additionally, we speculate that the inadvertent mild inflation of the stent balloon by the junior second operator contributed to the reduced deliverability of the stent and its eventual dislodgment.

Notably, the procedure was successfully completed, and two 2.75 x 22 mm DESs were implanted, achieving a very good final angiographic result (Figure 1D).

Coronary stent loss is a rare complication during PCI, with an incidence of approximately 0.5%. Most commonly, the dislodged stent is found in the coronary artery or the aorta. This report describes an unusual instance of stent loss within the

Y-connector, which fortunately had no serious consequences for the patient. This case underscores the importance of careful and meticulous preparation and handling of angioplasty devices during PCI to prevent such unexpected incidents.

Informed Consent: Informed consent was obtained from the patient for the publication of the case image and the accompanying images.

Peer-review: Internally peer-reviewed.

Author Contributions: Concept – K.C.T., K.T., C.K., A.Z.; Design – K.C.T., K.T., C.K., A.Z.; Supervision – M.D., G.K., A.Z.; Data Collection and/or Processing – K.C.T., K.T., C.K., M.D.; Literature Review – M.D., G.K., A.Z.; Writing – K.C.T., G.K.; Critical Review – M.D., G.K., A.Z.

Conflict of Interest: The authors have no conflicts of interest to declare.

Funding: The authors declared that this study received no financial support.

Videos 1–3. Fluoroscopic scanning of the right coronary artery (RCA), the aorta, and the guide catheter in search of the lost stent.