The mystery of the Dragon’s tail solved by 3D reconstruction

El misterio de la cola de dragón resuelto por la reconstrucción 3D

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This is the case of a 78-year-old man with hypertension and dyslipidemia admitted due to unstable angina. The coronary angiography confirmed the presence of a chronic occlusion at middle left anterior descending coronary artery level and significant stenosis of the middle right coronary artery with a shepherd’s crook morphology of the proximal segment [figure 1A]. Angioplasty was performed using an AL-1 catheter and advancing a SION Blue guidewire (Asahi Intecc, Japan). A 4.5 mm × 30 mm zotarolimus-eluting stent was directly implanted. The follow-up angiography revealed the presence of an image consistent with dissection of the artery proximal segment [figure 1B]. Afterwards, an intracoronary image was acquired using optical coherence tomography (OCT) (DragonFly OPTIS, Abbott Vascular, United States) that confirmed the presence of a iatrogenic type B dissection presumably due to catheter impaction against the vessel wall. It was treated by implanting a 5.0 mm × 12 mm zotarolimus-eluting stent that overlapped with the previous one. The new OCT performed confirmed its proper expansion and the sealing of dissection. However, a double circle image was seen in several frames [figure 2A,B] gradually coming together until they eventually meet each other [figure 2C]. Thanks to the 3D reconstruction of the image, it was revealed that the catheter was folded over itself [figure 3, arrow]. The likely mechanism to obtain this image is the difficulty found when trying to advance the OCT catheter due to the double curve created by the withdrawal of the AL-1 catheter [to try to assess the angioplasty result] added to the shepherd’s crook morphology of the artery [zigzag course].

The patient gave his written informed consent for publication purposes.

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S. Santos-Martínez, and P. Tejedor-Viñuela drafted the manuscript and completed its critical review. M. Leiva-Gordillo performed the final processing of the images. R. García-Belenger, and P. Morillas-Blasco reviewed the manuscript and approved its final version for publication. All the authors approved such version.

CONFLICTS OF INTEREST

None reported.