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Letter to the Editor

Aspiration of intact coronary bifurcation thrombus in ST-elevation myocardial infarction

Clemens von Birgelen *, Kenneth Tandjung, Ming Kai Lam

Thoraxcentrum Twente, Department of Cardiology, Medisch Spectrum Twente, Enschede, The Netherlands

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We report a case of a 74-year-old female patient with acute chest pain who was admitted for primary percutaneous coronary angioplasty. The electrocardiogram indicated an acute ST-elevation myocardial infarction of the anterolateral wall. Coronary angiography showed a thrombus-containing lesion in the left anterior descending coronary artery with absence of a major diagonal branch (Fig. 1A; arrowhead). Administration of abciximab was not considered as there was some leakage of blood from the punctured, calcified femoral artery. An aspiration catheter was slowly advanced into the lesion, before vacuum-suction was initiated to manually remove thrombus. After careful retrieval, we found at its tip an intact Y-shaped thrombus (Fig. 1D) that resembled the shape of the bifurcation. After thrombus removal, blood flow was fully restored in the diagonal branch (Fig. 1B, arrowhead; Fig. 1E, 3D reconstruction by dedicated 3D QCA software [1] (Medis, Leiden, The Netherlands)). Following stent implantation of two drug-eluting coronary stents (Fig. 1C), the in-hospital course of our patient was uneventful, and the patient was discharged after 5 days. This case with a unique transcatheter removal of an *intact* coronary bifurcation thrombus nicely illustrates the pathophysiological principle of thrombus propagation from a fissured or ruptured plaque into both subordinate branches of a bifurcation [2].

References

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* Corresponding author at: Thoraxcentrum Twente, Department of Cardiology, Haaksbergerstraat 55, 7513ER Enschede, The Netherlands. Tel.: +31 53 4872105; fax: +31 53 4872107.
E-mail address: c.vonbirgelen@mst.nl (C. von Birgelen).

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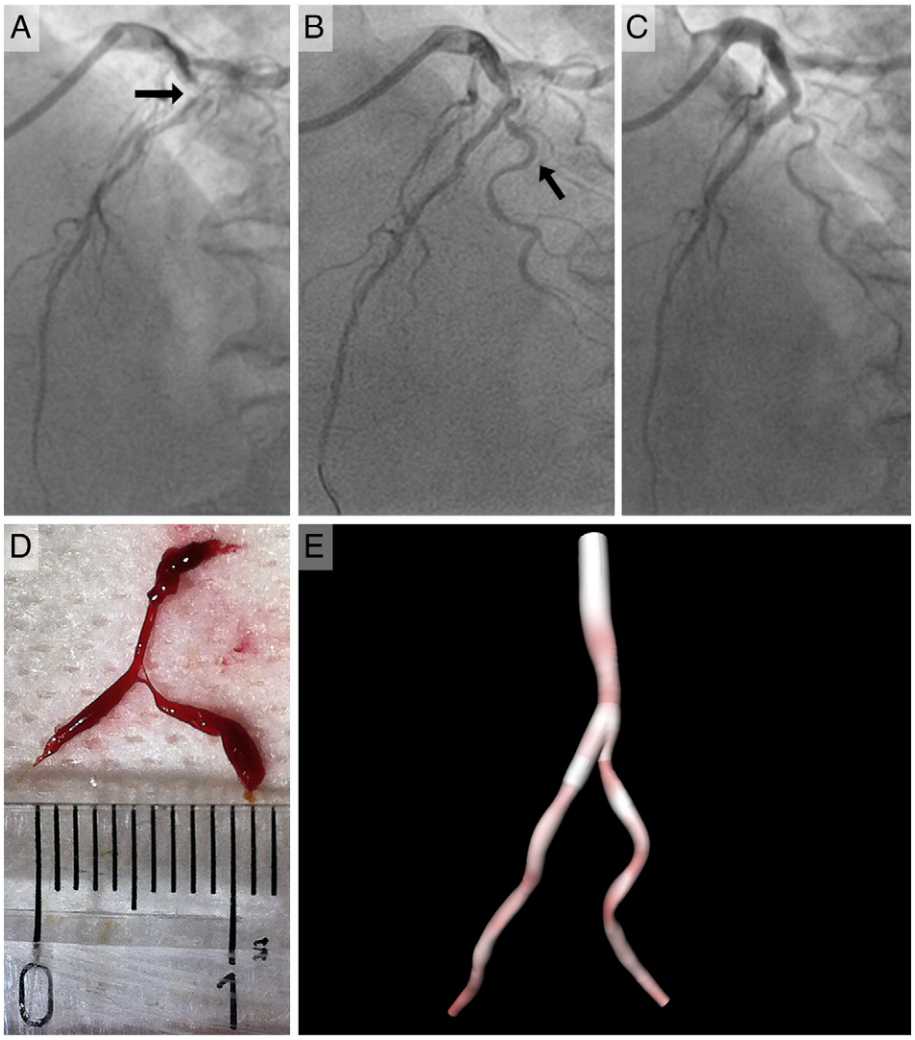

Fig. 1. Coronary angiograms of the percutaneous coronary angioplasty procedure (A–C); intact Y-shaped thrombus (D) and 3D reconstruction of the bifurcation anatomy from two-dimensional angiographic projections (E).

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