A very-late migrated coronary stent mimicking aortic root vegetation

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A 77-year-old man developed fever, dyspnoea, and bilateral lung oedema over a 3 days course. Echocardiography found an elongated hyperechoic mass protruding from the aortic wall near left coronary cusp, oscillating in the aortic root (Panel A, Supplementary material online, Video S1). No significant valvular dysfunction or intra-cardiac thrombus was found. The blood cultures grew methicillin-resistant Staphylococcus aureus. Despite adequate antibiotics coverage, the patient progressed into profound shock. Computed tomography to evaluate infection foci found a metallic material in the aortic root originated from the left main ostium (Panel B). Review of the patient’s history revealed that he had received drug-eluting stents (Promus element, Boston Scientific) implanted from the proximal segment of left circumflex to the left main coronary artery and to the left anterior descending coronary artery 1 year ago (Panel C, left and Supplementary material online, Videos S2 and S3). An urgent operation was taken to explore and correct the aortic root pathology. A metallic stent protruded from the left main coronary ostium was seen, elongated for ~3 cm into the aortic root (Panel D). The migrated stent was removed and coronary artery bypass grafting was done. The patient succumbed to profound shock but the culture of removed stent was negative for bacteria growth.

Late stent migration of coronary stent was rare. Late stent mal-apposition due to positive remodelling might be the cause of migration. This case reminds physicians a migrated stent to be a possible cause of echogenic material in the aortic root even late after implantation. (Panels A and B) Image studies before operation. (A) Bed-side echocardiography revealed an oscillating high-echogenic material in the aortic root (white arrow); (B) computed tomography showed a high-Hounsfield unit material (black arrow) protruded into the aortic root. (Panels C and D) Operative finding and previous coronary angiogram. (C) Coronary angiogram revealed a stent deployed from the proximal left circumflex to the distal left main coronary artery (white arrow); (D) a metallic stent protruded from the ostium of left main coronary artery (white arrow) after the aortic root exposed.

Supplementary material is available at European Heart Journal online.