Xience SBA Bifurcation Stent for Treating Distal Left Main Disease in NSTEMI Patient

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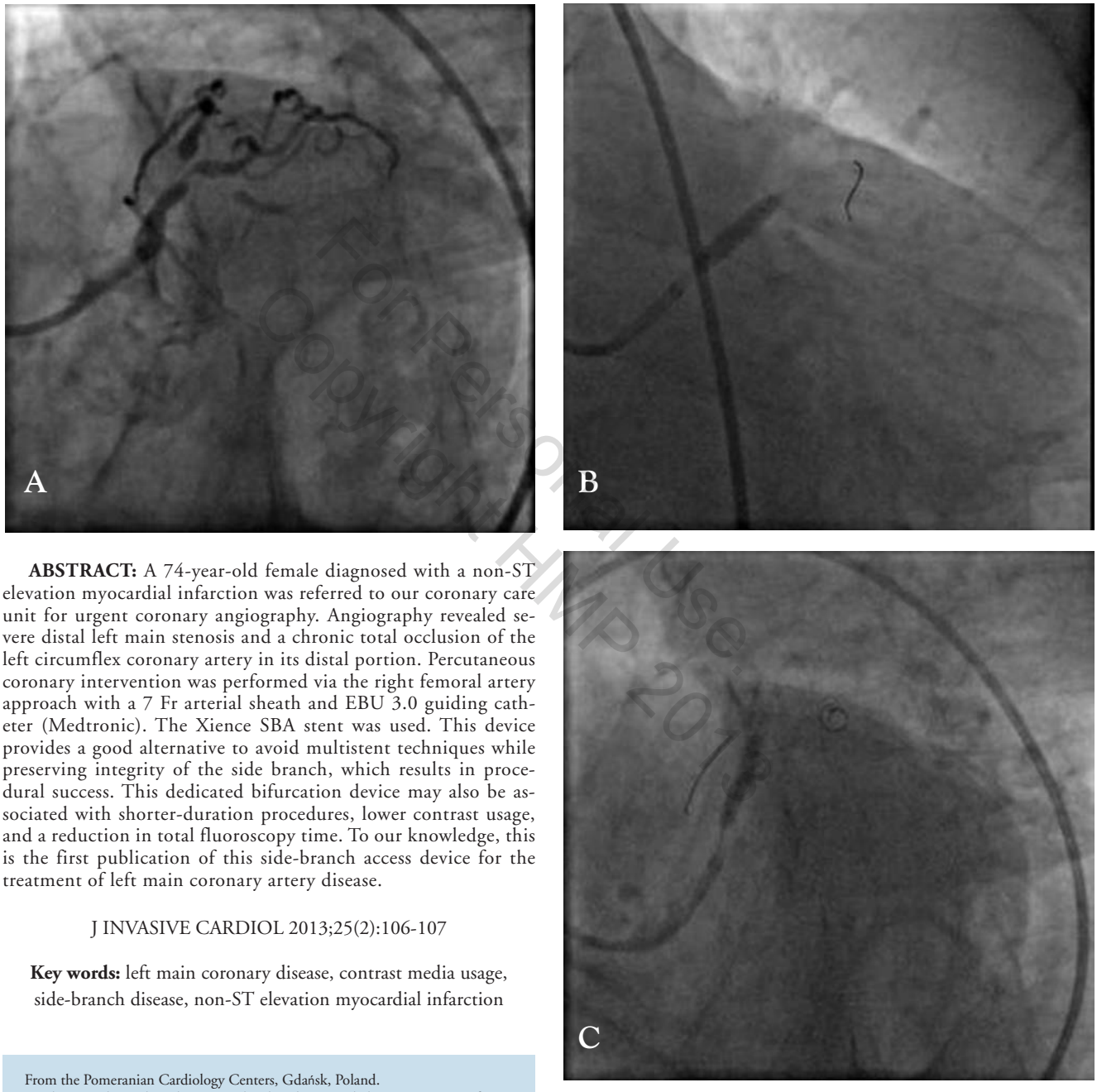

ABSTRACT: A 74-year-old female diagnosed with a non-ST elevation myocardial infarction was referred to our coronary care unit for urgent coronary angiography. Angiography revealed severe distal left main stenosis and a chronic total occlusion of the left circumflex coronary artery in its distal portion. Percutaneous coronary intervention was performed via the right femoral artery approach with a 7 Fr arterial sheath and EBU 3.0 guiding catheter (Medtronic). The Xience SBA stent was used. This device provides a good alternative to avoid multistent techniques while preserving integrity of the side branch, which results in procedural success. This dedicated bifurcation device may also be associated with shorter-duration procedures, lower contrast usage, and a reduction in total fluoroscopy time. To our knowledge, this is the first publication of this side-branch access device for the treatment of left main coronary artery disease.

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Key words: left main coronary disease, contrast media usage, side-branch disease, non-ST elevation myocardial infarction

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Figure 1. *Left anterior oblique caudal view.* **(A)** *Critical bifurcation stenosis of the distal left main coronary artery (LMCA) extending into the ostia of the left anterior descending (LAD) and left circumflex (LCX), chronic total occlusion of the distal LCX.* **(B)** *One BHW guidewire (Abbott) placed in the LAD and the other in the LCX; predilatation of the distal LMCA lesion with a 3.0 x 15 mm Trek balloon (Abbott) at 16 atm in the direction of the LCX and* **(C)** *subsequently in the direction of the LAD.*

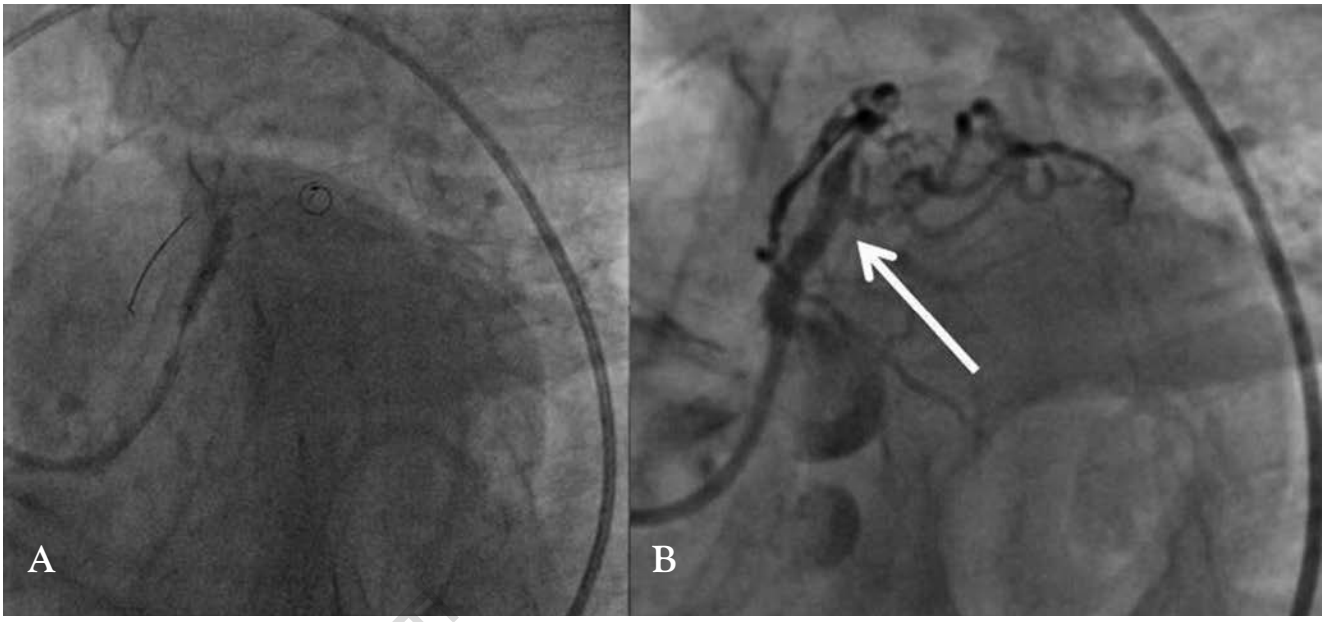

Figure 2. *Left anterior oblique caudal view.* **(A)** *Positioning and deployment of the 3.0 x 2.5 x 18 mm Xience SBA stent (Abbott) with the single inflation device at 16 atm.* **(B)** *Final angiographic result after postdilatation with a 4.0 x 15 mm Durastar NC balloon (Cordis) at 20 atm, achieving excellent preservation of the left circumflex ostium (white arrow).*

Case Description

A 74-year-old female diagnosed with non-ST elevation myocardial infarction was admitted to our coronary care unit. She was subsequently triaged to urgent coronary angiography. Cardiac catheterization revealed severe distal left main coronary artery (LMCA) stenosis and a chronic total occlusion of the circumflex coronary artery (LCX) in its distal portion (Figure 1A). Coronary artery bypass grafting was considered, but the patient refused to undergo cardiac surgery.

She was considered a candidate for percutaneous coronary intervention of the LMCA via the right femoral artery approach with a 7 Fr arterial sheath and EBU 3.0 guiding catheter (Medtronic Vascular). Two BHW guidewires (Abbott) were used. Using a dual-wire technique, the first was placed in the left anterior descending (LAD) coronary artery and the other in the LCX. Predilatation of both coronary arteries with a 3.0 x 15 mm Trek balloon (Abbott) at 16 atm was performed (Figures 1B and 1C). Following predilation, we implanted a 3.0 x 2.5 x 18 mm Xience SBA stent (Abbott Vascular) at 16 atm and subsequently postdilated it with a 4.0 x 15 mm Durastar NC balloon (Cordis) at 20 atm.

A satisfactory angiographic result was obtained with excellent preservation of the LCX ostium (Figures 2A and 2B). Our decision to utilize the Xience SBA stent in this case was based on our previous device success treating patients with complex coronary bifurcation lesions. The Xience SBA may represent a good alternative in lesions of this type and may help to avoid multistent techniques while preserving integrity of the side branch. To our knowledge, this is the first publication of Xience SBA stent usage in the invasive treatment of distal left main lesion.[1-4]

References

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