

Successful Multi-Stent Delivery in a Heavily Calcified Right Coronary Artery Using the GuideLiner Catheter

PHYSICIAN

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PRESENTATION

The patient is a male, with a relevant medical history consisting of diabetes mellitus, hypertension and hyperlipidemia. Three years prior to this visit the patient presented with acute coronary syndrome and underwent PCI with rotablation and stenting of the LAD. At that time, treatment of a stenosed, heavily calcified right coronary artery was also attempted with rotablation and POBA, but it was impossible to position the stent due to the tortuosity and calcification of the artery.

Three years later, due to increasing exertional angina, he was reconsidered for coronary angiography and eventually PCI.

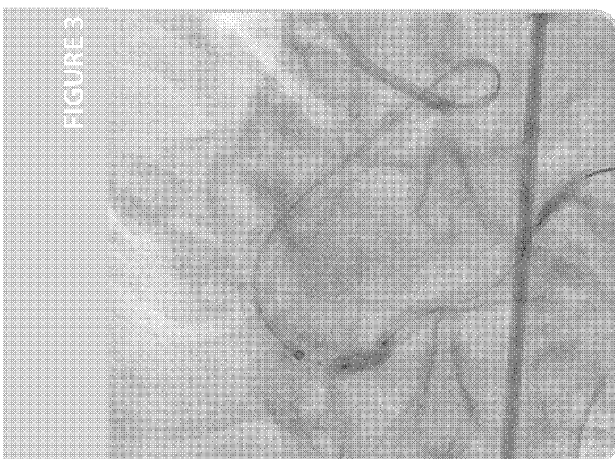
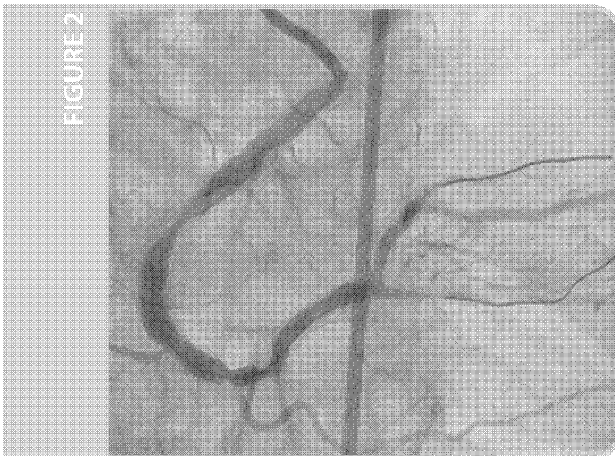
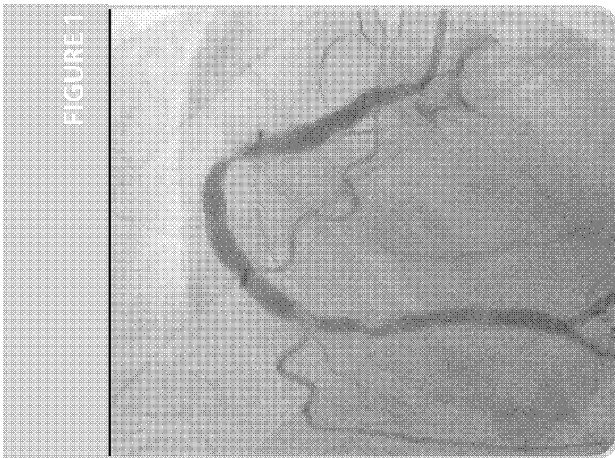
INITIAL FINDINGS

Coronary angiography demonstrated patency of the previously treated LAD, and a heavily calcified circumflex artery with occlusion of a small marginal branch. The dominant right coronary artery was tortuous and completely calcified all along its course. Critical stenoses were present in the proximal and mid-distal (tandem lesion) right coronary artery with diffuse disease of IVP (Figure 1). Left ventricular function was preserved.

TREATMENT

A 7F amplatz left guiding catheter was positioned at the ostium of the right coronary artery. After positioning two Balance Heavyweight 0.014" guidewires in the IVP and PL, we attempted to pass a microcatheter to the distal vessel with the intent to place a Rotablator® guidewire that was impossible to advance otherwise. The maneuver was unsuccessful due to the failure to advance the microcatheter (Figure 2).

(continued on back)



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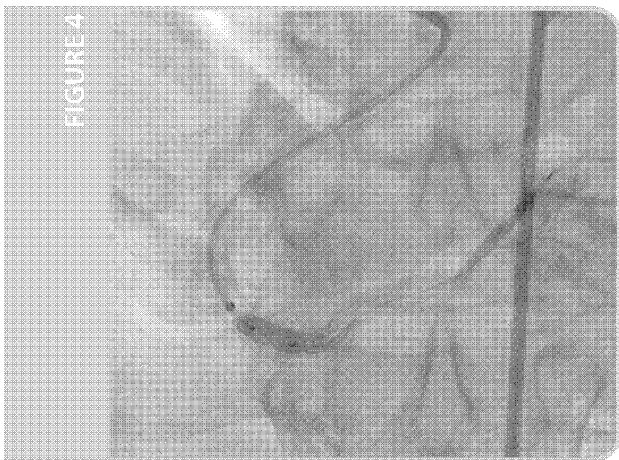


FIGURE 4



FIGURE 5

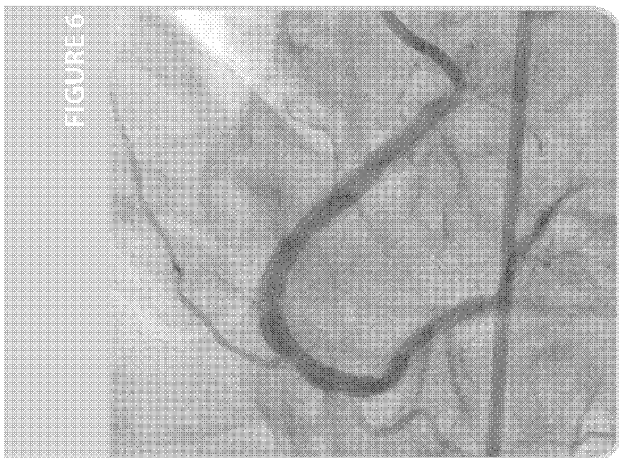


FIGURE 6

GUIDELINER SUPPORTED TREATMENT

After removing one of the guidewires, a 6F GuideLiner catheter was inserted over the remaining Balance Heavyweight guidewire and advanced to the proximal portion of the right coronary. It was then possible for a 2.5mm x 3.0mm balloon to reach the distal lesions and to dilate it. In order to deliver the stent, it was necessary to further advance the Guideliner catheter. In order to do so, a 3.0mm balloon was inflated distally and kept inflated, acting as an anchor so that the GuideLiner catheter could be pushed over the balloon and positioned right in front of the distal lesion (Figure 3). After removing the balloon, 3.5mm x 12mm and 3.5mm x 15mm Xience™ stents were advanced through the GuideLiner catheter, positioned and deployed in the middle distal right coronary (Figure 4). After withdrawing the GuideLiner catheter to a more proximal location, a 4mm x 12mm Xience stent was positioned proximally (Figure 5). Final dilatation with 3.5mm and 4mm high pressure balloons was performed while using the GuideLiner catheter in order to position the balloon distally. Good results were obtained (Figure 6).

CONCLUSION

In this case, by enabling distal stent delivery within a heavily calcified vessel, the GuideLiner catheter made it possible to treat previously unreachable lesions.



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GuideLiner catheters are intended to be used in conjunction with guide catheters to access discrete regions of the coronary and/or peripheral vasculature, and to facilitate placement and exchange of guidewires and other interventional devices. Please see the Instructions for Use for a complete listing of the indications, contraindications, warnings and precautions.

CAUTION: Federal law (U.S.A.) restricts this device to sale by or on the order of a physician.

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VSIQXM_E00044670