Percutaneous sealing of a coronary aneurysm

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A 48-year-old male saxophone player underwent successful PTCA to the left circumflex coronary artery (LCx) in 1992. At the time, a small aneurysm was noted before PTCA, just below the target stenosis. The patient stopped smoking and was treated for hypercholesterolemia and high blood pressure. In 1997, he developed recurrent grade II angina, and a bicycle stress test was positive. Repeat catheterization showed a tight restenotic lesion of the LCx proximal to the aneurysm, which had enlarged significantly, as well as a new lesion more distally (Figure 1).

Repeat PTCA was done with a 3.0×30-mm balloon through a 10F left Amplatz guiding catheter with a good result (Figure 2). A 20-mm segment of saphenous vein was then harvested from the left leg and sutured onto the external aspect of a 25-mm-long slotted-tube stainless steel stent (Bestent, Medtronic-Instent) with 4 separate 7-0 prolene stitches at each extremity. The stent was crimped onto the previously used balloon and advanced into the LCx to cover both lesions and the aneurysm (Figure 3). The stent and vein were expanded at a maximal pressure of 14 bar, and the final angiographic result was satisfactory, with no residual stenosis and complete sealing off of the aneurysm (Figure 4). The patient had an uneventful in-hospital course and was discharged on ticlopidine and aspirin. Six weeks later, he remained asymptomatic, and the stress test had become negative.
Figure 3. Percutaneous Sealing of Coronary Aneurysm

Figure 4.