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IMAGES IN CARDIOLOGY

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Coronary endarterectomy and stent removal with off-pump coronary artery bypass surgery

In-stent restenosis remains a significant limitation of coronary artery stenting, occasionally requiring bypass grafting. However, in cases of extensive stent length, the coronary artery-distal graft anastomosis may be technically challenging. We report a patient who underwent implantation of two stents (a proximal 2.5 mm in diameter/24 mm in length and a distal 2.5 mm in diameter/13 mm in length) in the left anterior descending (LAD) coronary artery and one stent (2.5 mm in diameter/24 mm in length) in the obtuse marginal branch (ClearFlex-St, ClearStream Technologies Ltd, Enniscorthy, Co Wexford, Ireland). Four months later, he presented with recurrent angina, and coronary angiography showed total occlusion of the LAD. During surgery, endarterectomy (28 mm in length) was performed in the LAD. In addition, the distal stent was carefully dissected from the endothelium and removed together with endarterectomy material (in panel the arrows indicate the proximal and distal ends of the removed stent). The left internal mammary artery was subsequently anastomosed to the LAD at the site of the stentectomy. The whole procedure was performed without the use of extracorporeal circulation. Eighteen months after surgery, the patient remains asymptomatic on antithrombotic and anticoagulant treatment.

Our experience adds to the few cases of stent removal reported previously. Endarterectomy combined with stent removal is an uncommon, technically demanding surgical

procedure, associated with good results. The need for this procedure may increase in the future, given the increase in the use of coronary artery stents.

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