

Image in cardiology

Long-term OCT findings after coronary endarterectomy

Hallazgos por OCT a largo plazo tras endarterectomía quirúrgica

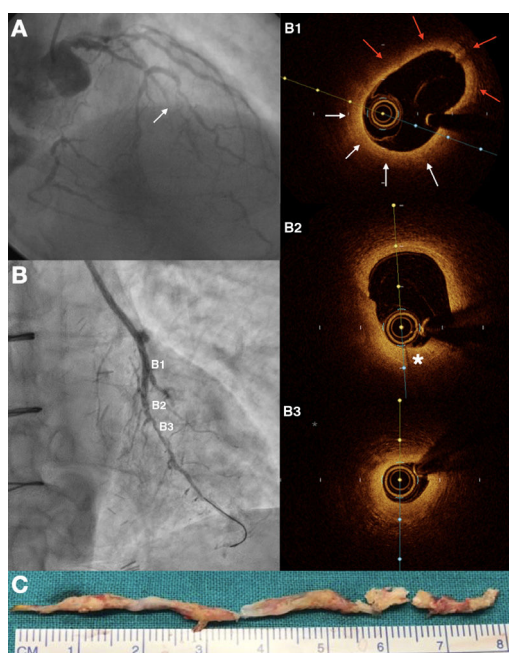
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Figure 1.

A 70-year-old man with chronic ischemic heart disease, refractory angina, and 3-vessel disease with chronic occlusion of the midleft anterior descending (LAD) artery and poor distal vascular beds (figure 1A, arrow) underwent myocardial revascularization comprising grafting of the left internal mammary artery to the LAD after 4-cm-long open endarterectomy and of the saphenous veins to the ramus intermedius, obtuse marginal branch, and posterior descending artery. One year later, coronary angiography was performed due to episodes of angina. After graft permeability was confirmed, optical coherence tomography was performed through the mammary artery graft toward the LAD to assess the endothelialization of the endarterectomized segment (video 1 of the supplementary data); an anastomosis was formed by the “roof” of the mammary artery (white arrows) with the LAD (red arrows) (figure 1B 1). The middle endarterectomized segment had a neointimal layer compatible with complete endothelialization and hyperintense signal suggestive of fibrosis (asterisk) with some macrophage infiltration (figure 1B 2). There was a marked difference in intraluminal area between the endarterectomized segment and the more distal nonendarterectomized segment, and fibrous plaque was evident, without a trilaminar appearance (figure 1B 3). Figure 1C shows the 8-cm-long adventitia-encircled atherosclerotic specimen removed after the endarterectomy.

Open endarterectomy is a complex myocardial revascularization technique indicated in patients with diffuse coronary atherosclerosis that involves the removal of plaque and the adventitia after longitudinal arteriotomy. To the best of our knowledge, we are the first to describe long-term OCT imaging that shows the complete endothelialization of an endarterectomized vessel, as well as an area of anastomosis.

APPENDIX. SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version available at <https://doi.org/10.1016/j.rec.2020.10.014>

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