

Carotid artery stenting with optical coherence tomography

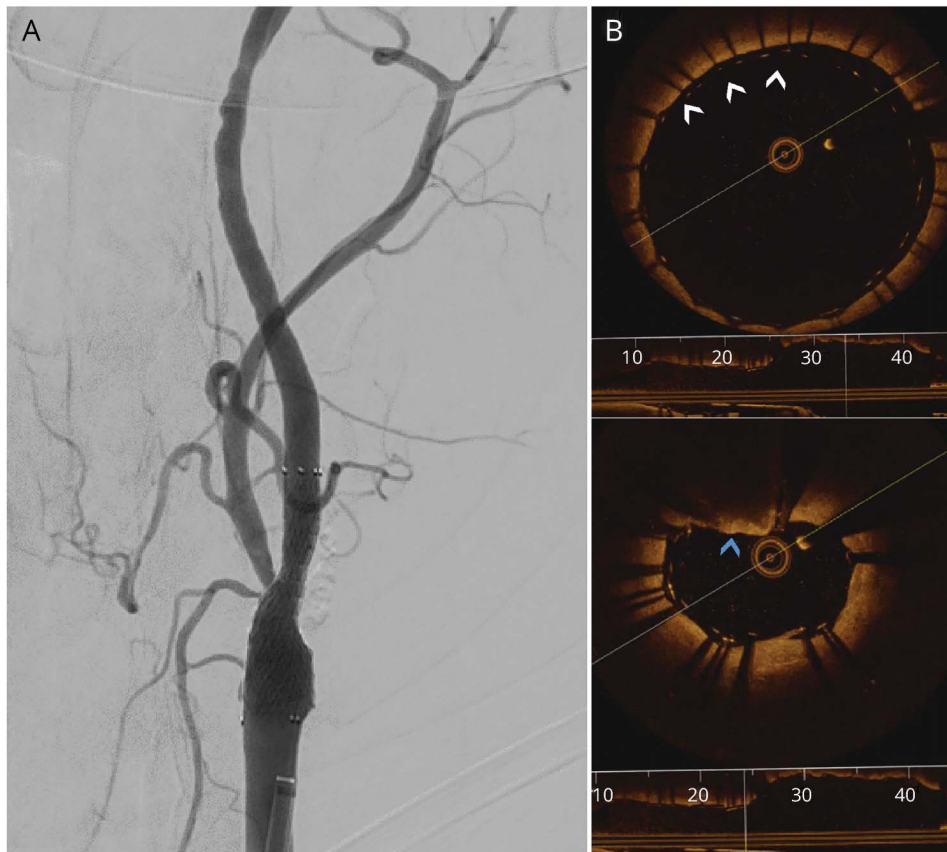
Naif M. Alotaibi, MD, Francesca Sarzetto, MD, Joel Ramjist, and Victor X.D. Yang, MD, PhD

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Correspondence

Dr. Yang
Victor.Yang@sunnybrook.ca

Figure 1 Postoperative findings



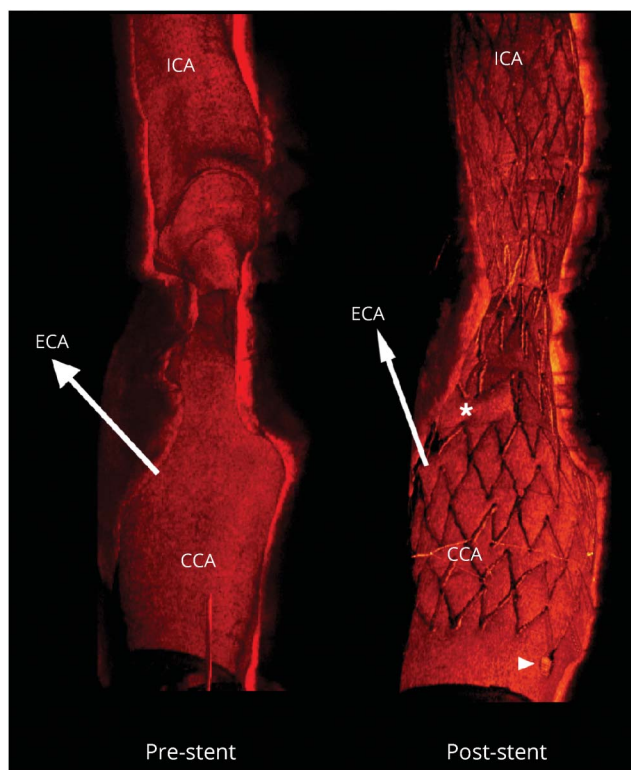
(A) Satisfactory poststent angiography without filling defect detected. (B) Two endoluminal cross-sectional optical coherence tomography images demonstrate the absence of any plaque protrusions within the stent struts (white arrowheads) and plaque protrusion between the stent struts (blue arrowhead) at a different zone.

A 61-year-old man underwent a left cervical internal carotid artery stenting following a recent ischemic stroke. Postoperative angiography was satisfactory and did not reveal any in-stent filling defect (figure 1A). Optical coherence tomography (OCT) probe was used to visualize the endoluminal area following stenting. OCT confirmed optimum placement of the stent and revealed a small plaque protrusion from the stent struts following deployment (figure 1B).

From the Division of Neurosurgery, Department of Surgery, Sunnybrook Health Sciences Centre, University of Toronto, Canada.

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Figure 2 3D reconstruction



3D reconstruction of the left cervical internal carotid artery using optical coherence tomography images before and after stenting. Plaque protrusion between the stent struts is marked with asterisk and arrowhead. CCA = common carotid artery; ECA = external carotid artery; ICA = internal carotid artery.

OCT offers the advantage of obtaining very high spatial resolution in real time of the artery lumen (figure 2). OCT can be a useful adjunct to diagnose in-stent plaque protrusions that are difficult to visualize in digital subtraction angiography.^{1,2}

Author contributions

Conception and design, acquisition of data, analysis and interpretation of data: All authors. Drafting the article: Drs. Alotaibi and Yang. Critically revising the article: Dr. Yang. Approved the final version of the manuscript on behalf of all authors: Dr. Yang.

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Disclosure

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