Cath Lab Digest

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STRUCTURAL HEART

Management of Complex Valve Disease Patients

CLD talks with Structural Cardiologist Lowie Van Assche, MD, Baptist Health South Florida, Miami, Florida, about his presentation at Baptist Health's Echocardiography and Structural Heart Symposium, which took place September 27th-28th in Coral Gables, Florida.

How are standard structural heart disease patients different from more complex patients?

For most of our transcatheter aortic valve replacement (TAVR) or transcatheter edge-to-edge repair (TEER) population, the heart team approach has become straightforward. Usually these are stable outpatients, and we discuss each patient as a team in an effort to decide if we should provide medical management, transcatheter therapy, or surgical therapy. However, not infrequently, we will encounter patients who are very sick and it is unclear as to what approach we should take. These patients have complex presentations, fall outside of the guidelines, and don't fit inside the usual pathway of how we treat patients. The good news is that with new transcatheter therapies, we can help some of these patients who are not necessarily within what we might consider standard of care practice. In patients who have acute complications, the number one thing we try to do is get them out of trouble. If we can prevent these patients from decompensating and dying, many will go on have a positive outcome.

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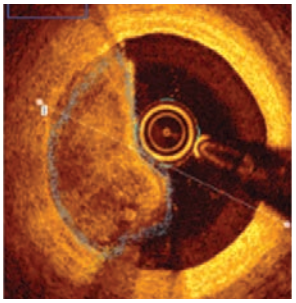
CLINICAL IMAGES

Optical Coherence Tomography in the Peripheral Vasculature



Jha Manvendu, DrNB; Ajay Dabas, MBBS, MS, DNB; Brijesh Kanti Biswas, MBBS

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PAD TREATMENT

Retrospective Review of Directional Atherectomy and Drug-Coated Balloon Use in a PAD Safety-Net Population

Shea E. Hogan, MD, MSCS; Matthew Holland, MD; Joseph Burke, MD; Paisley Johnson, MD; Demetria McNeal, MD; Lisa Cicutto, MD; Mark Nehler, MD; Pamela N. Peterson, MD, MSPH

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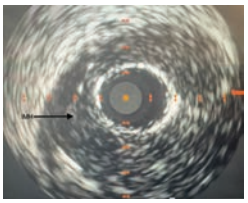
CASE REPORT

Not the Usual Suspect: Intracoronary Hematoma Presenting as an Acute STEMI



Yashwant Agrawal, MD; Dominika M. Zoltowska, MD; Anthony Elghoul; Anwita Reddy Nimma; Tim A. Fischell, MD

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HMP Global

Optical Coherence Tomography in the Peripheral Vasculature

Jha Manvendu, DrNB; Ajay Dabas, MBBS, MS, DNB; Brijesh Kanti Biswas, MBBS

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Case Report

A 45-year-old woman, who was a non-smoker with a known case of hypertension, presented with a history of pain in her right upper limb on exertion for the past 6 months. There was no history of any neurological symptoms, trauma, or giddiness/syncope. Clinical examination revealed absent brachial, radial, and ulnar pulses with palpable subclavian and axillary pulses. Upper right limb temperature was the same as the left upper limb. There was no evidence of a cervical rib. Neurological examination was unremarkable, and contralateral upper limb

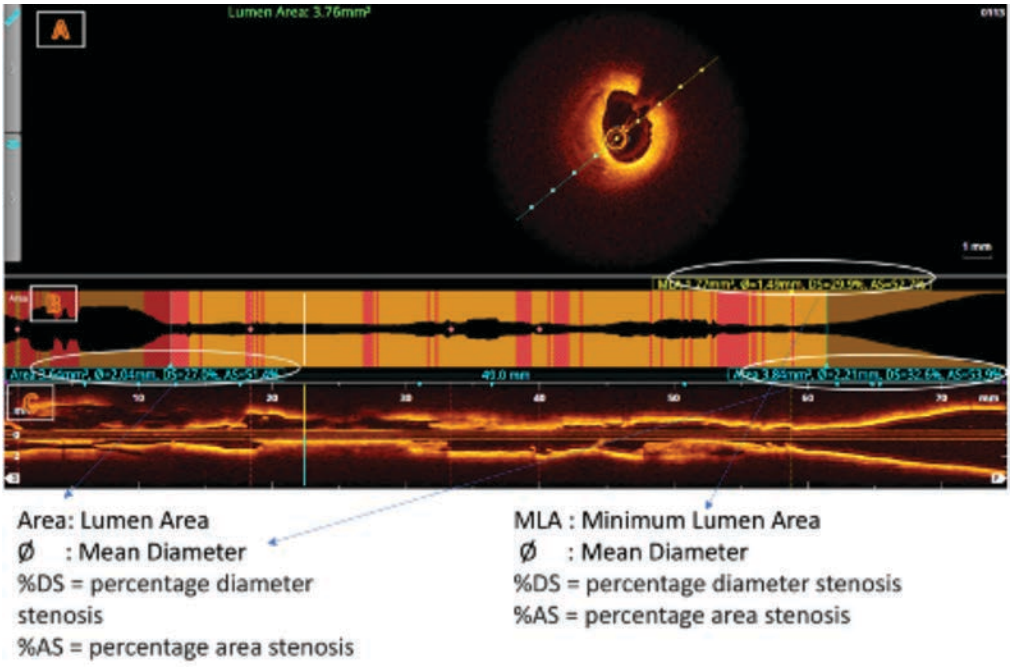

Figure 1. Pre-post optical coherence tomography analysis pullback. (A) B-mode cross-section view. (B) Depicts lumen profile. The cross-sectional area of the vessel is visualized along the entire length of the examined vessel segment. It allows precise determination of the vessel diameter (mean reference diameter) and the length of the altered segment. The white marker is located at the position of the cross-section shown. (C) Shows longitudinal mode. Viewed from left to right, the longitudinal section visualizes the scanned vessel segment from distal to proximal in AptiVue software (Abbott).

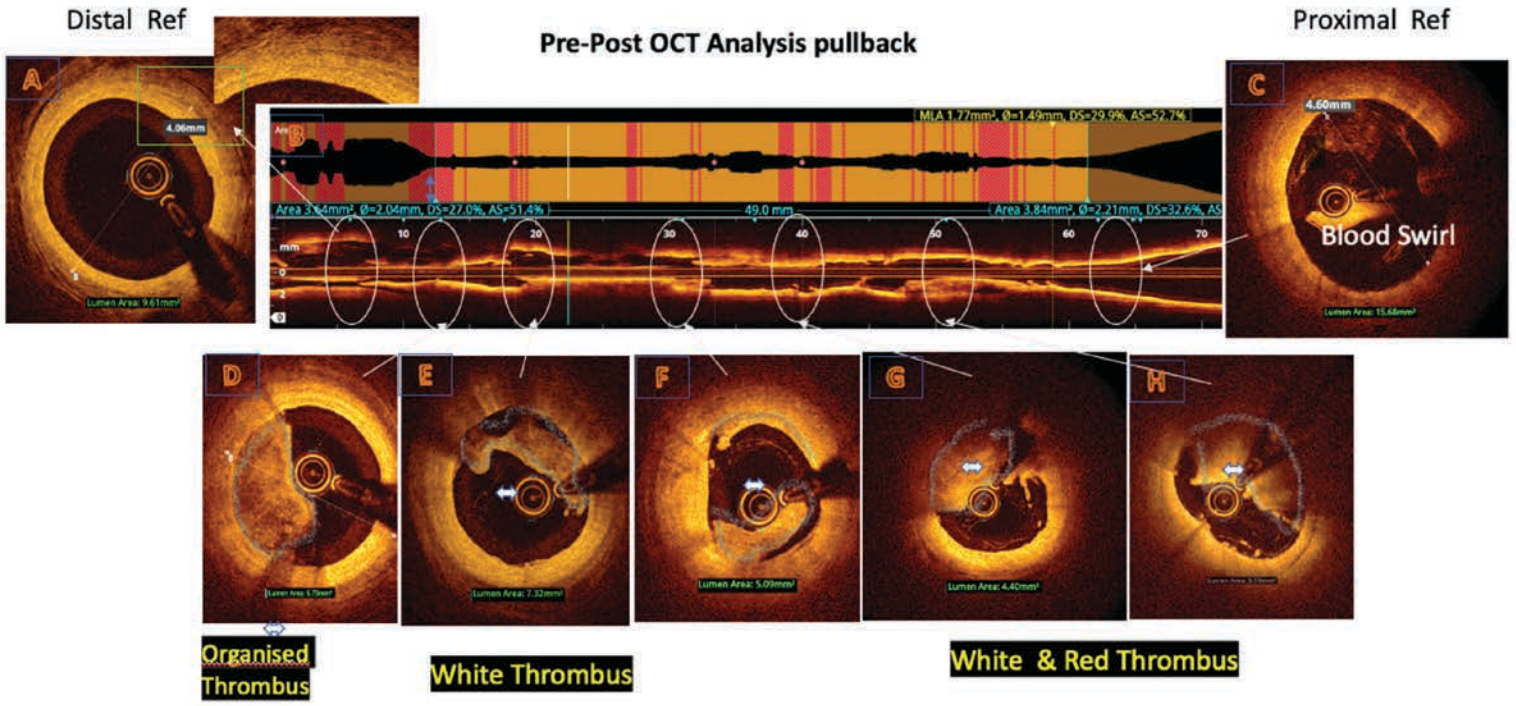

Figure 2. (A) Distal reference. (B) Lumen profile and longitude mode. (C) Proximal reference. (D) Organized thrombus. (E-H) Optical coherence tomography images in the distal and proximal segments of the thrombotic lesion exhibit.

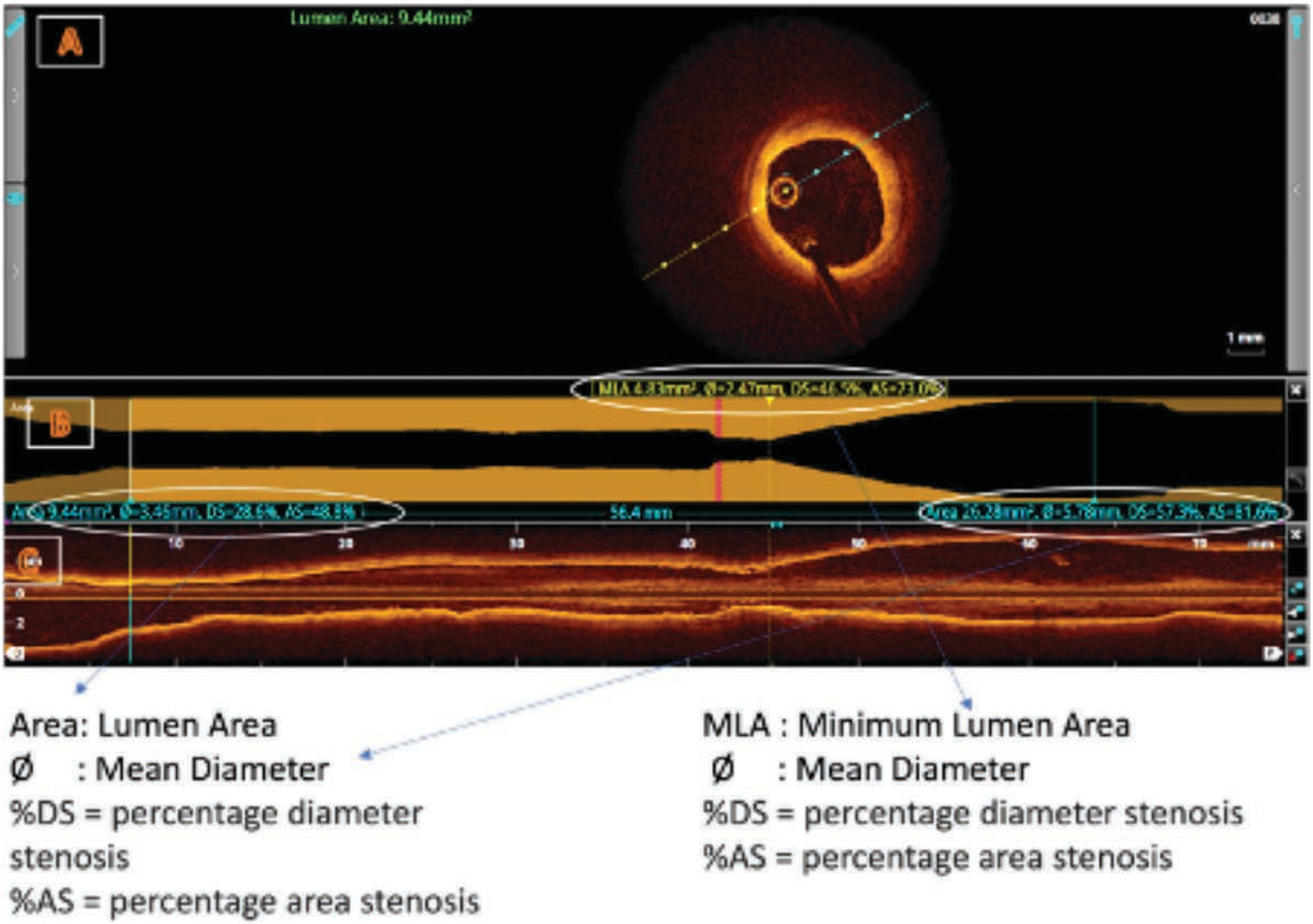

Figure 3. Pre-post optical coherence tomography analysis pullback. (A) B-mode cross-section view. (B) Depicts lumen profile. The cross-sectional area of the vessel is visualized along the entire length of the examined vessel segment. It allows precise determination of the vessel diameter (mean reference diameter) and the length of the altered segment. The white marker is located at the position of the cross-section shown. (C) Shows longitudinal mode. Viewed from left to right, the longitudinal section visualizes the scanned vessel segment from distal to proximal in AptiVue software (Abbott).

and bilateral lower limb pulses were palpable. There was a pressure difference of 30 mmHg in the brachial artery between the 2 upper limbs. Color Doppler revealed occlusion in the proximal and mid-brachial arteries with reformation of the distal brachial, radial, and ulnar arteries. A right transbrachial angioplasty/stenting was planned under optical coherence tomography (OCT) guidance.

The right brachial artery was punctured under ultrasound guidance using a micropuncture set, and a 6 French hemostatic sheath was placed. A check angiography image was taken to define the lesion in the distal axillary and proximal brachial artery. An 0.014-inch wire platform was used to introduce the Dragonfly OPTIS OCT catheter (Abbott), and pre-dilatation pullback images were obtained (Figure 1) to define the extent and morphology of the lesion along with the luminal area of the vessel along the whole extent of the lesion. Images showed a thrombotic lesion with a mix of red and white thrombus (Figure 2). Angioplasty was done using a 5 mm x 60 mm balloon. Repeat pullback images were taken, along with angiography images, to define the post-angioplasty status (Figure 3), which showed luminal gain along with good flow across the lesion. Post procedure, the right brachial, radial, and ulnar pulses were palpable. ■

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Disclosures: The authors report no financial relationships or conflicts of interest regarding the content herein.
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