



Bioresorbable vascular scaffold (BVS) implantation in Recanalized Thrombus assessed by optical coherence tomography (OCT): Case report

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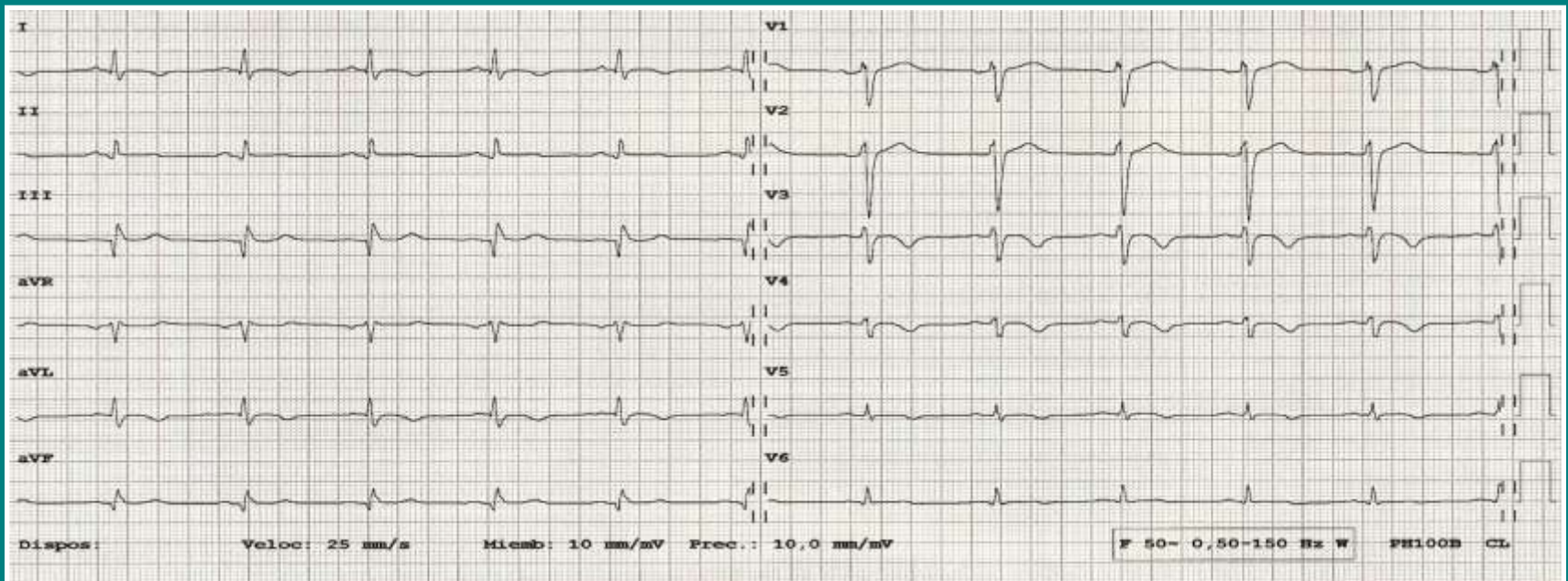
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Clinical presentation:

- 29-year old male.
- Current smoker.
- He was admitted to our hospital for persistent chest pain (12h evolution).
- Physical examination: BP: 135/80 mmHg, HR 78 ppm. No murmurs. No signs congestion.
- EKG: qR DIII, negative T waves V3-V5, DI, aVL.
- Biomarkers: Troponin T 900 ng/L (0-14).
- Echocardiogram: hypokinesia anterorapical (LVEF 60%). no pericardial effusion.



Coronary Angiography:

- By right radial arterial line.
- Cannulated the left main coronary artery with JL 3.5 5F, JR 4 5F catheter.



Figure A. LAO 40°, Figure B. RAO 31°-CAU 21° view;

Angiography revealed uninjured dominant right coronary, and circumflex artery without injury.

Coronary Angiography:

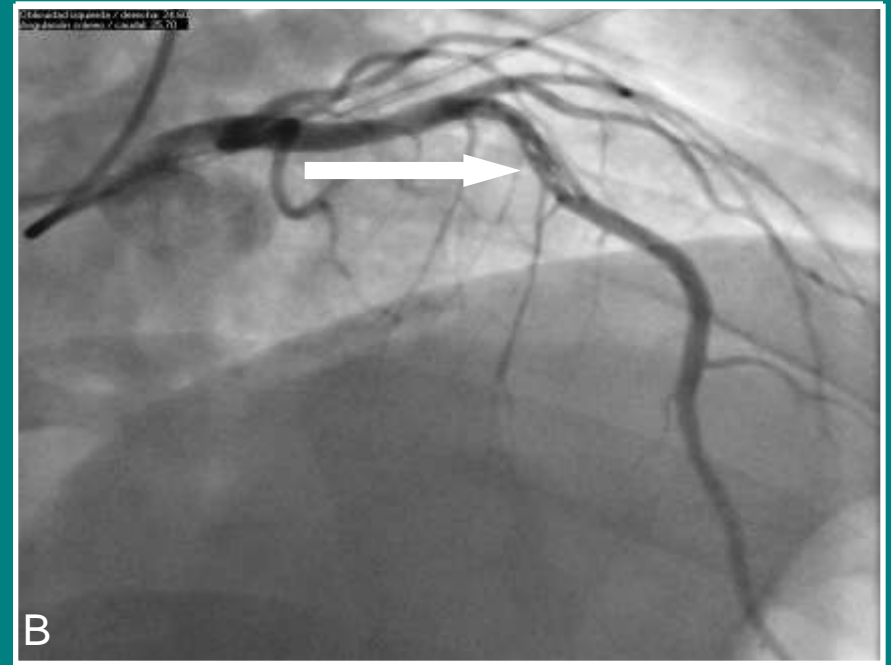
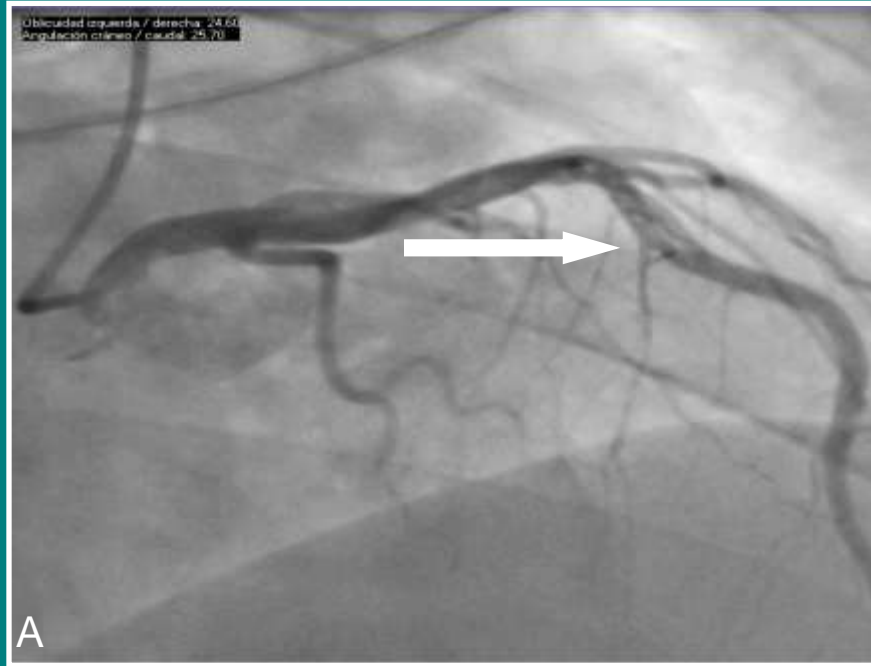


Figure A. OAD 39°-CRA 16° view, Figure B. OAD 34°-CRA 27° view;

Angiography revealed a significant injury to medium left anterior descending artery (LAD), with an image that does not discriminate spontaneous dissection or thrombus, coronary distal flow was preserved with TIMI 2-3.

Procedure:

- Cannulated the left main coronary artery with JL 3.5 6F catheter.
- Advance of a BMW Guidewire (0.014x190) to distal LAD. (**Figure C**)
- OCT was advanced 10 mm distal to the target segment. (**Figure D**)
- Nonocclusive technique with a C7XR system (DragonFly catheter and C7XR, LightLab Imaging) was used.

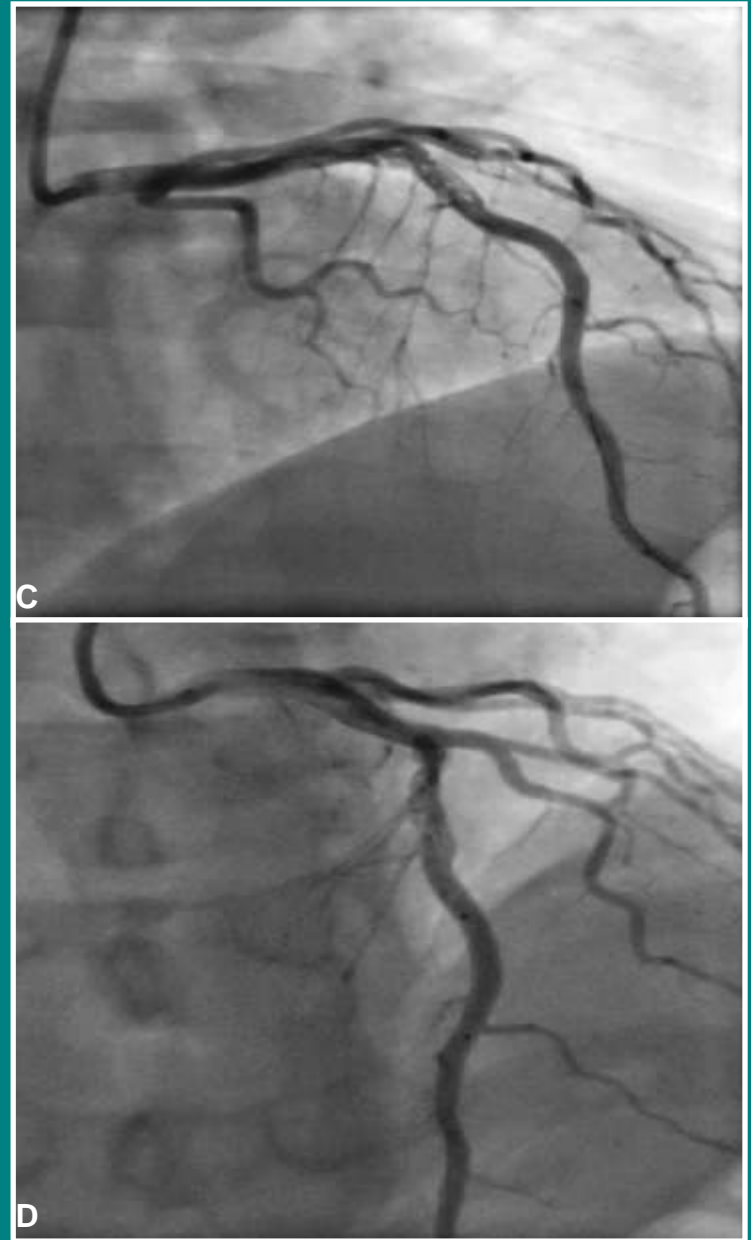


Figure C. OAD 34°-CRA 16°, D. OAD 5°-CRA 41° views:

OCT Diagnostic:

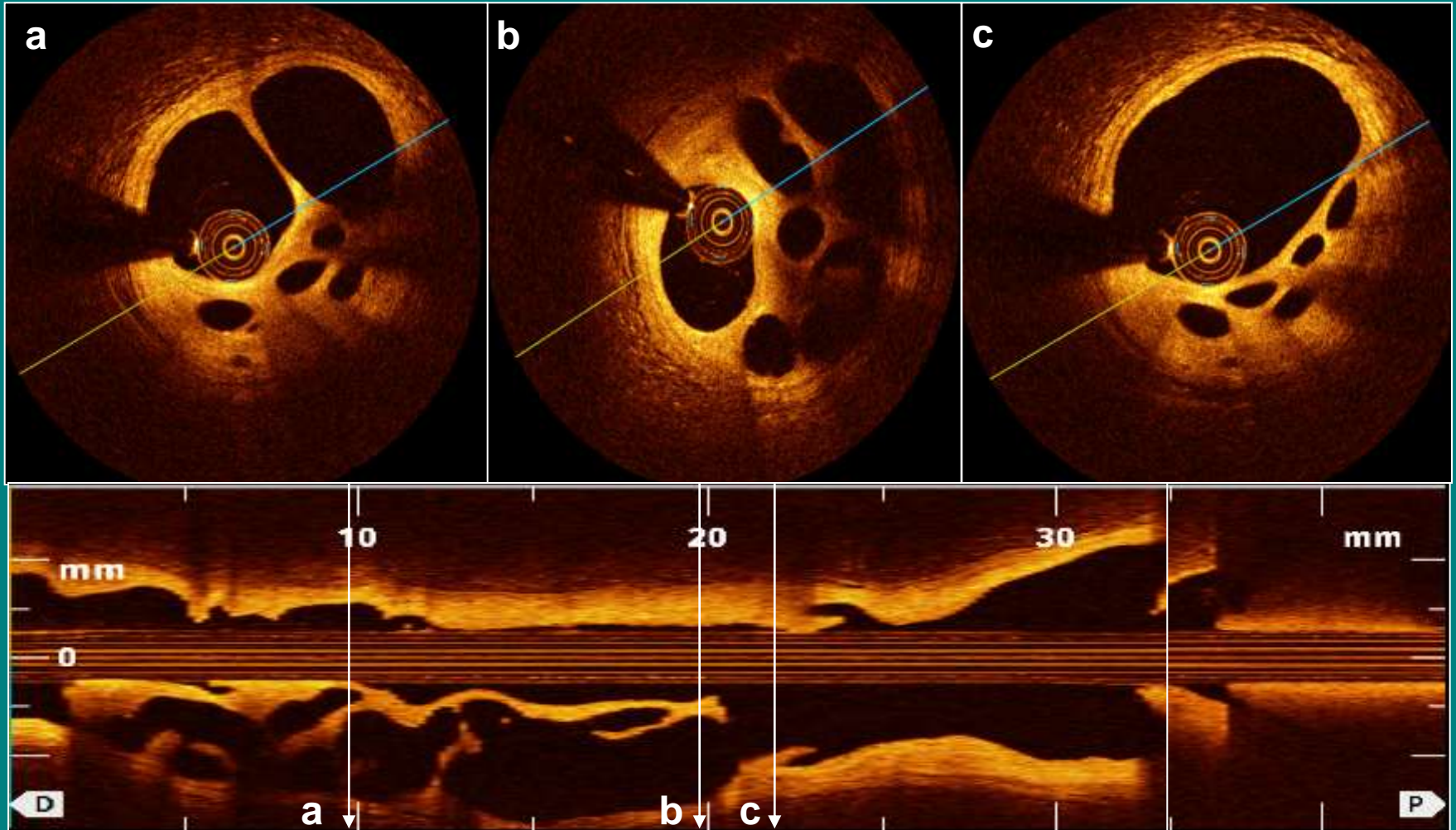


Figure a,b,c: OCT (C7-XR, Dragon Fly, LightLab, St. Jude Medical, St Paul, Minnesota) visualized a Honeycomb-like structure, suggestive of Recanalized Thrombus in mid LAD.

BVS implanted:

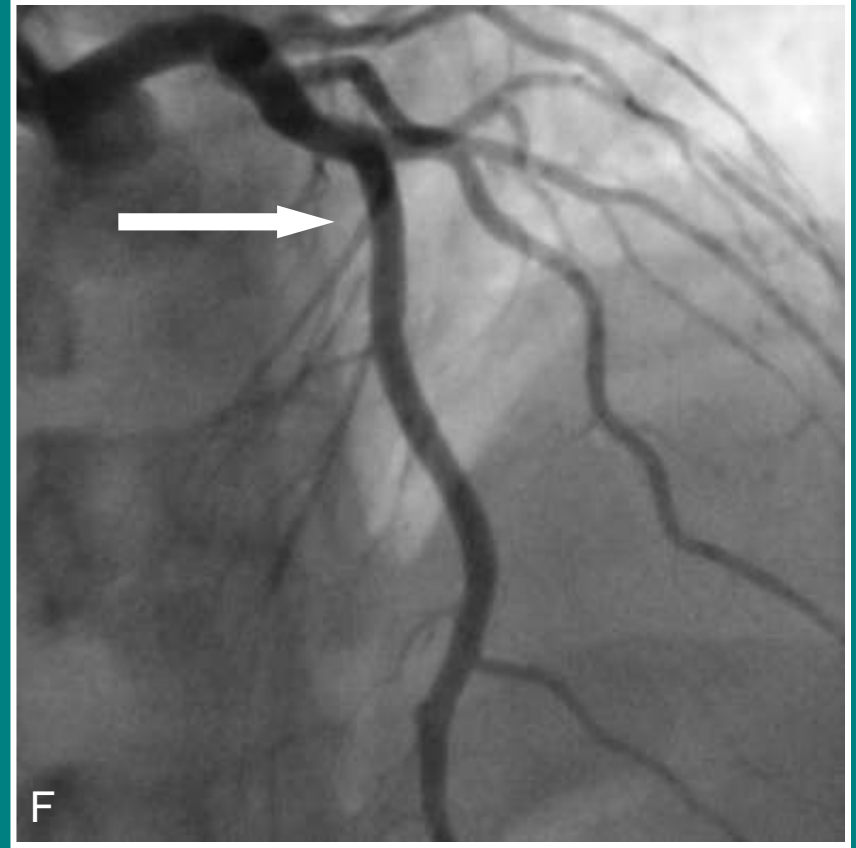
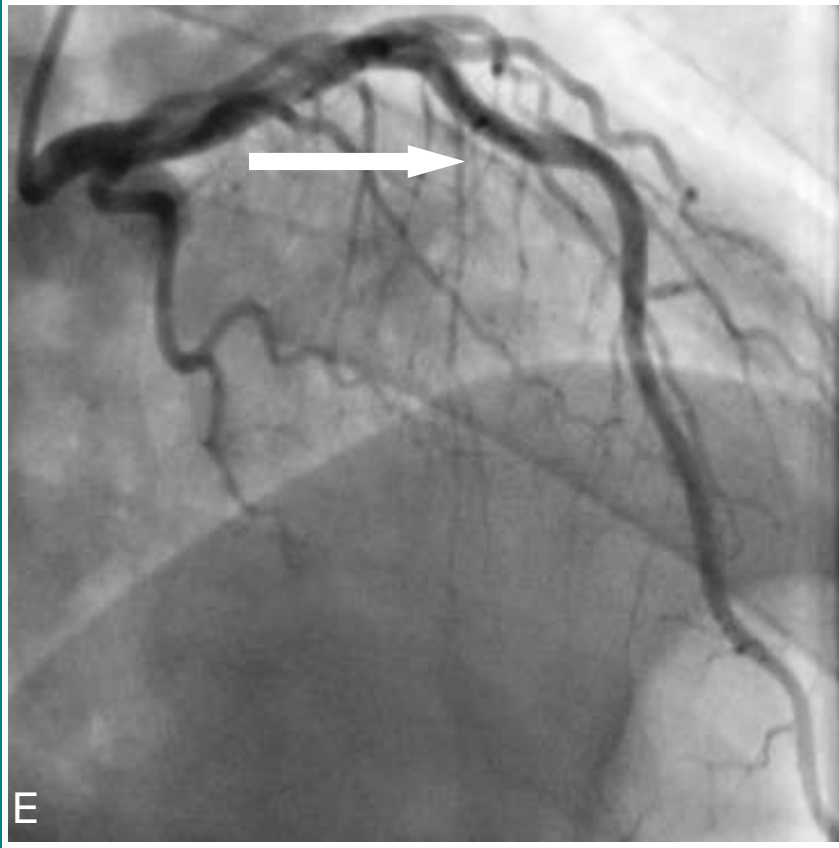


Figure E. OAD 30°-CRA 34° View, Figure F. OAD 8°-CRA 37° View;

Implantation of a bioresorbable vascular scaffold (ABSORB BVS; Abbott Vascular, Santa Clara, CA) 3x18mm at 14 ATM (expected diameter: 3.44mm), obtaining a good final angiographic result, TIMI flow 3 .

OCT Post-BVS Implanted:

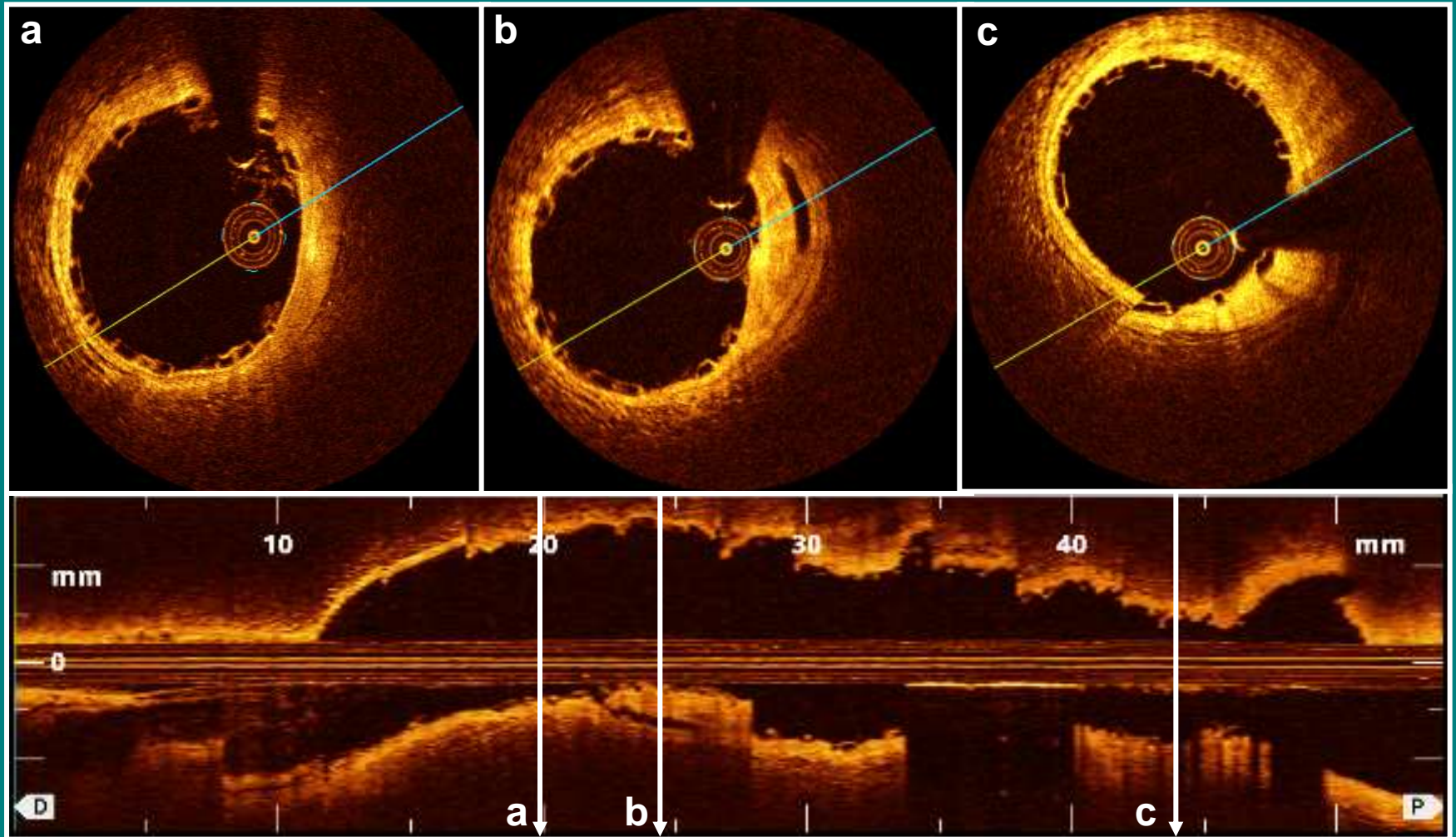


Figure a,b,c:

OCT imaging reveals adequate expansion and apposition of the scaffold.

Conclusions:

- Recanalization of coronary thrombi is rarely recognized in real-world clinical practice^(1,2).
- Advances in high-resolution imaging modalities such as OCT, have provided new insights into evolving thrombotic lesions^(3,4).
- OCT differentiates the causative mechanisms in vivo: plaque rupture/erosion, spontaneous dissection, aneurysm or heavy calcification^(5,6).
- BVS represents a new paradigm in the treatment of coronary lesions^(7,8).
- BVS may be a therapeutic alternative in the percutaneous treatment of these injuries, especially in young patients.

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GRACIAS/THANKS/OBRIGADO...