

The Truth Outside the Stent in Primary PCI

The Culprit is Still a Candidate Culprit!

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COI Disclosure

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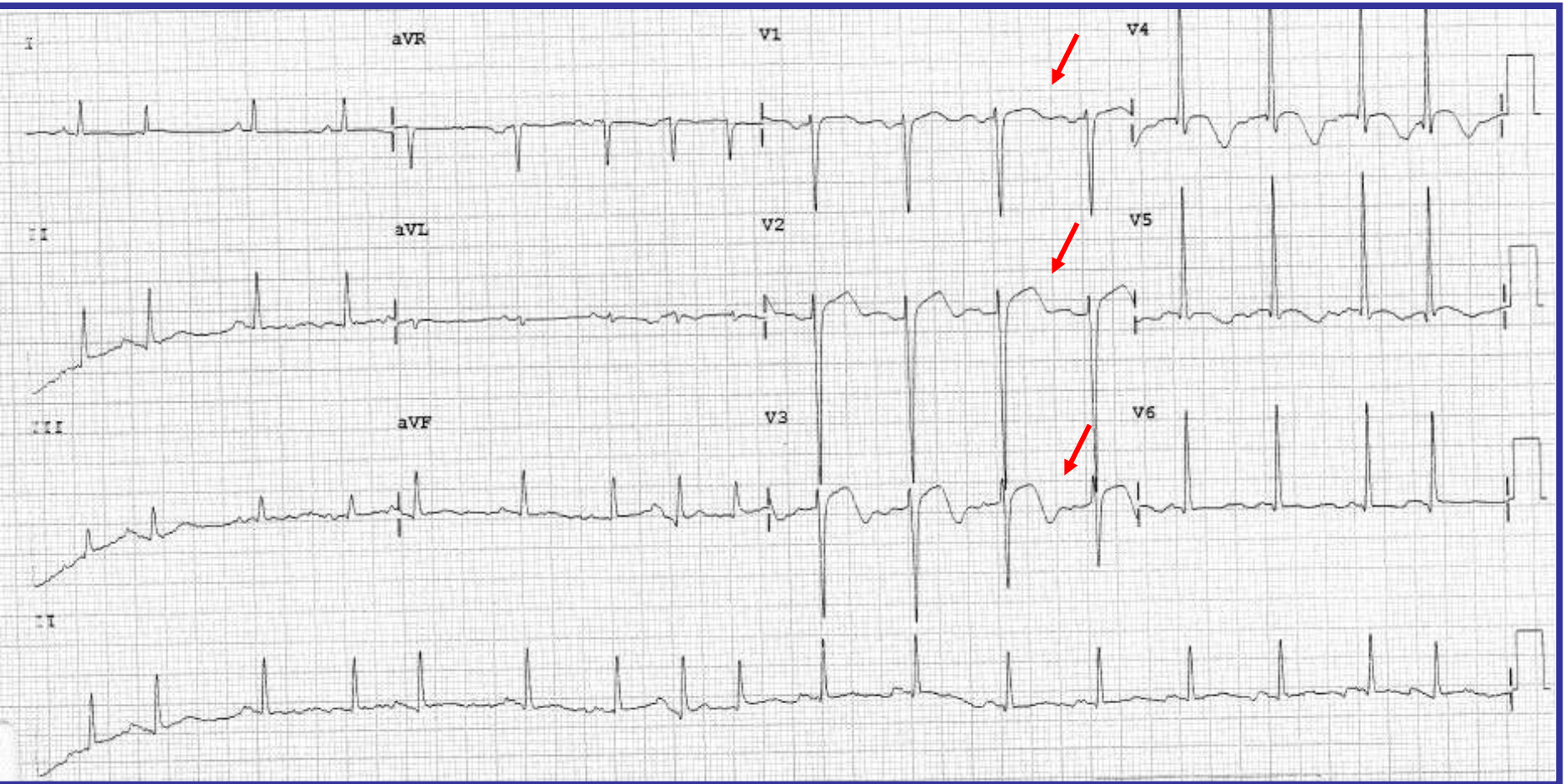
I have no financial conflicts of interest to disclose concerning the presentation.

A Case Report - General information

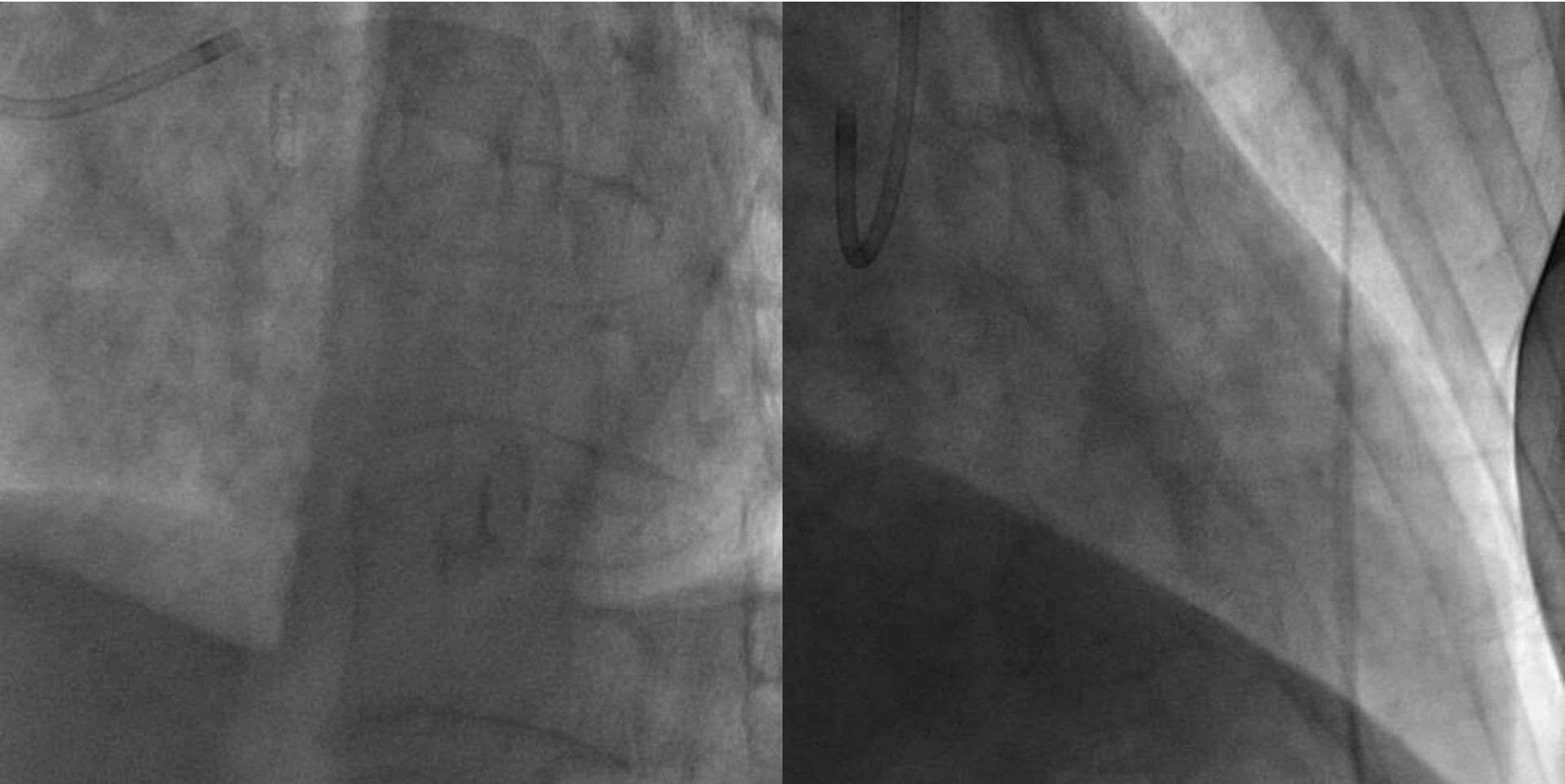
- 63 year-old male with complaints of severe chest pain for 2 hours
- **Medical Hx:** hypertension and rheumatoid arthritis (RA)
- NSTEMI received PCI on proximal LAD with DES (3.0x18mm) just 6 weeks ago.

ECG

ECG showed ST elevation in lead V1-3



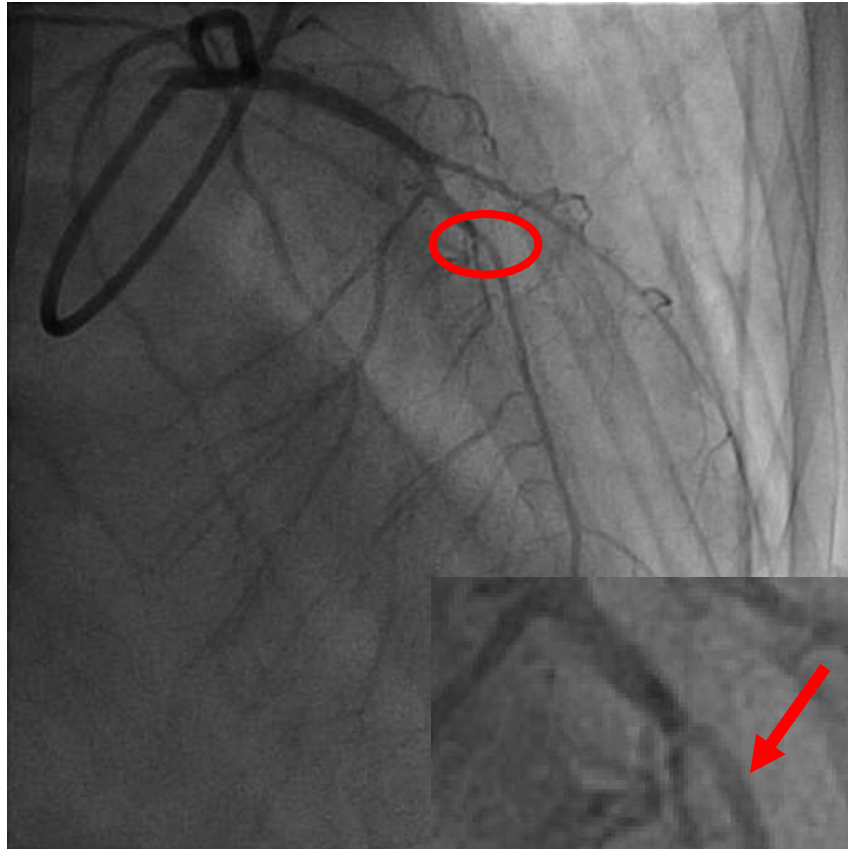
Angiography showed patent previous proximal LAD stent



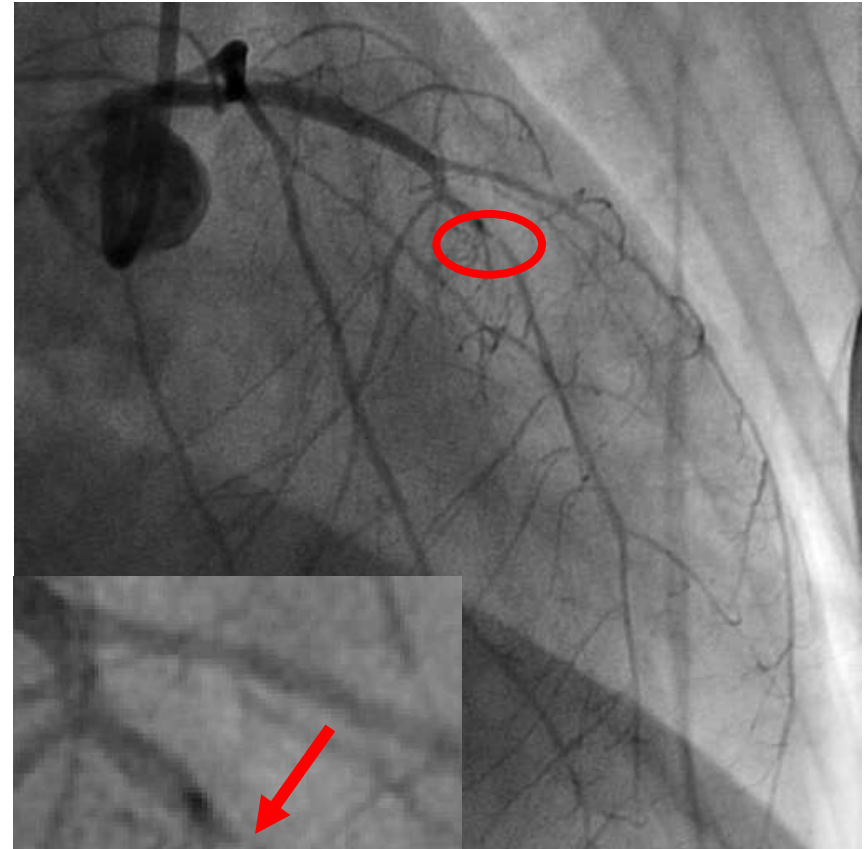
Where is the culprit lesion?

Spot filling defect at middle LAD

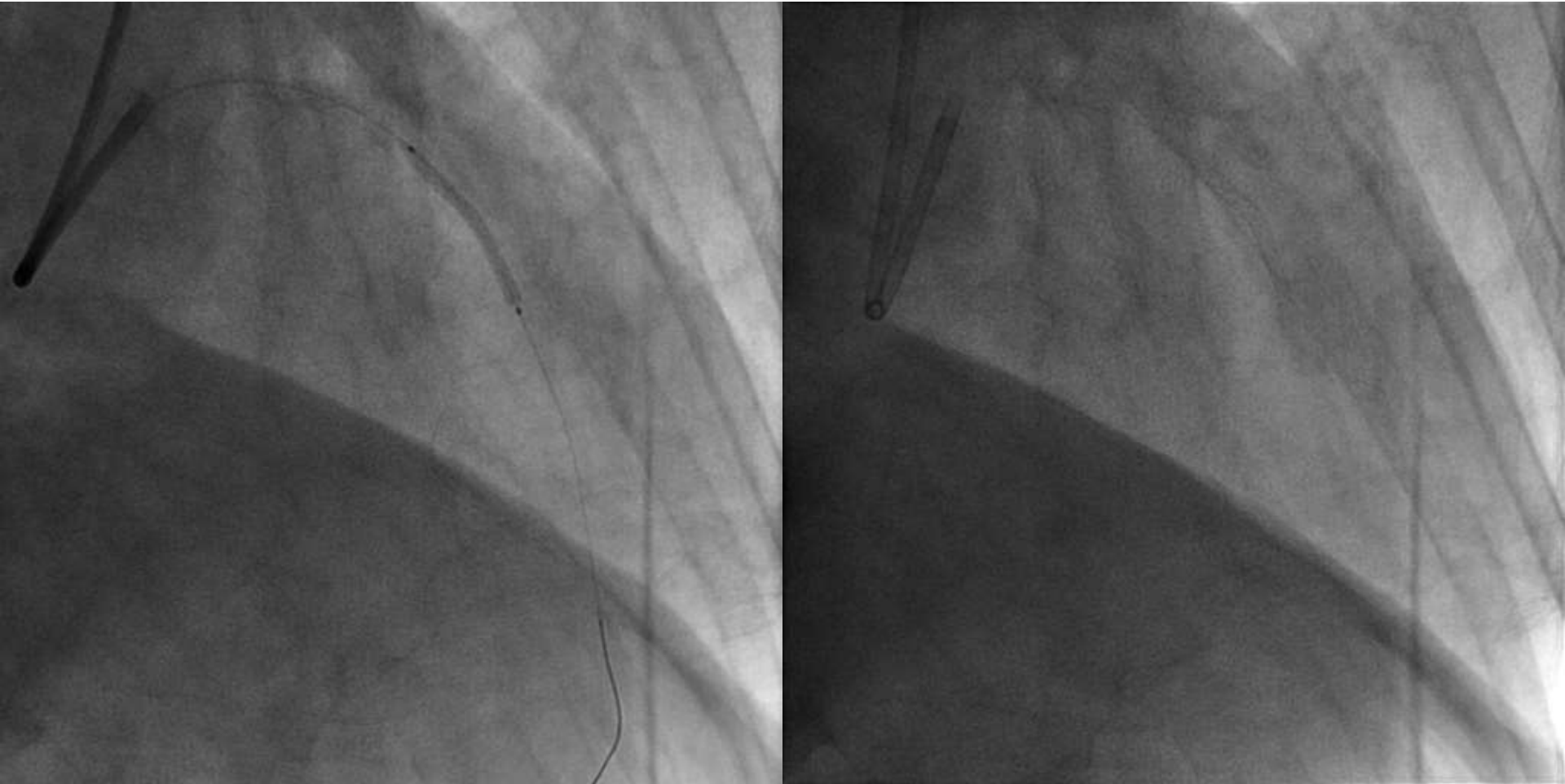
Previous LAD



STEMI



Because of small vessel, one small DES of 2.25 mm was placed.

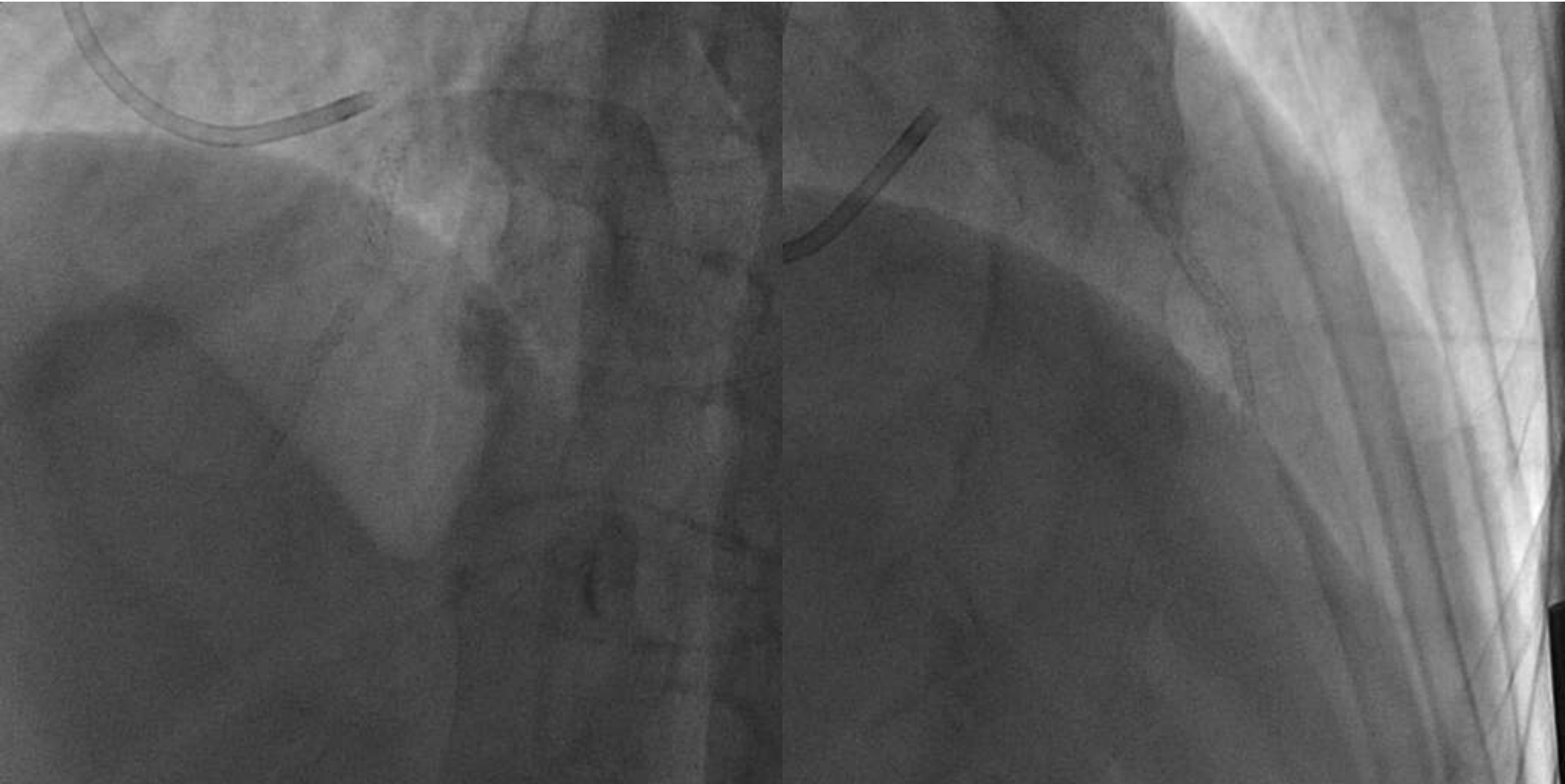


Final result was optimal. However, the blood flow of distal LAD was still slow and limited.

General information

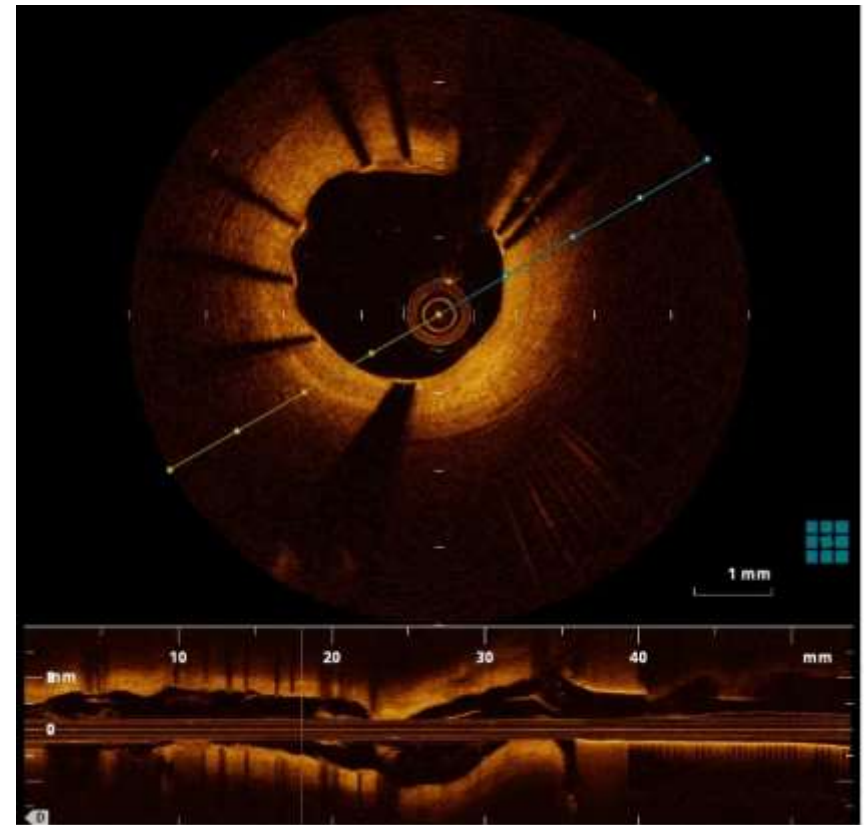
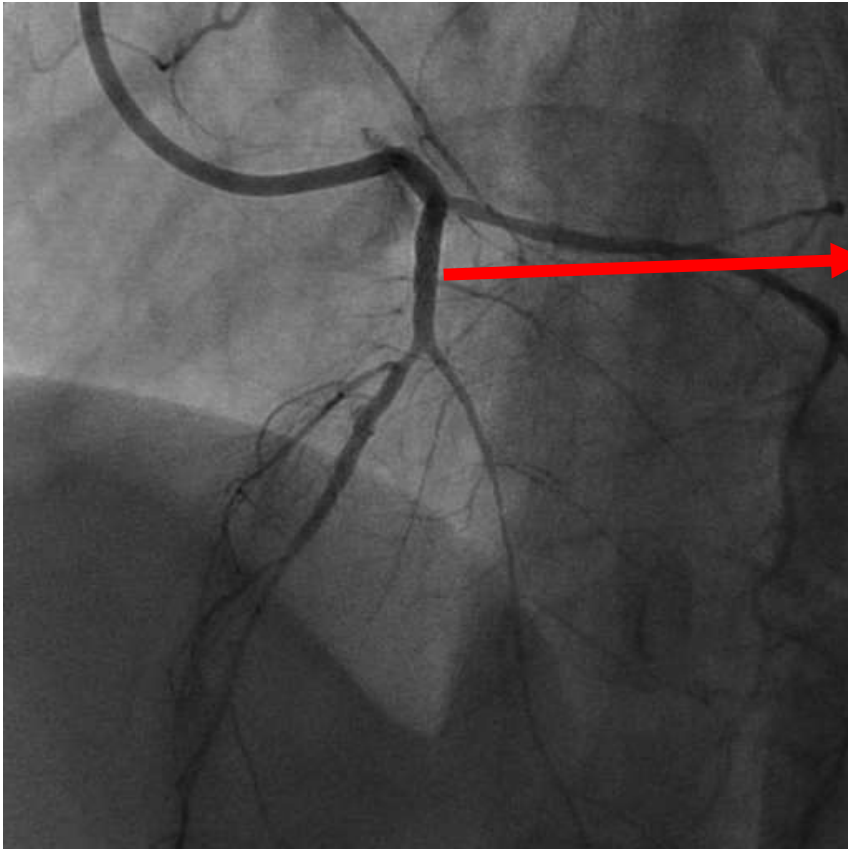
- After PCI, the patient's symptoms were relieved.
- Finally he was discharged at the 12th day after PCI with standard DAPT.
- The patient received follow-up in outpatient department.

He received followed angiography 35 days later...

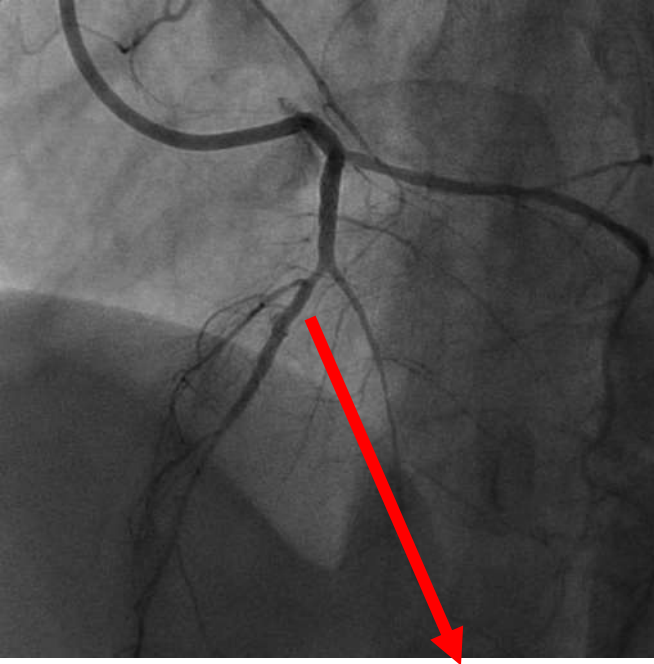


The 2 stents were patent. Distal flow was optimal.

OCT image of proximal DES showed optimal apposition.

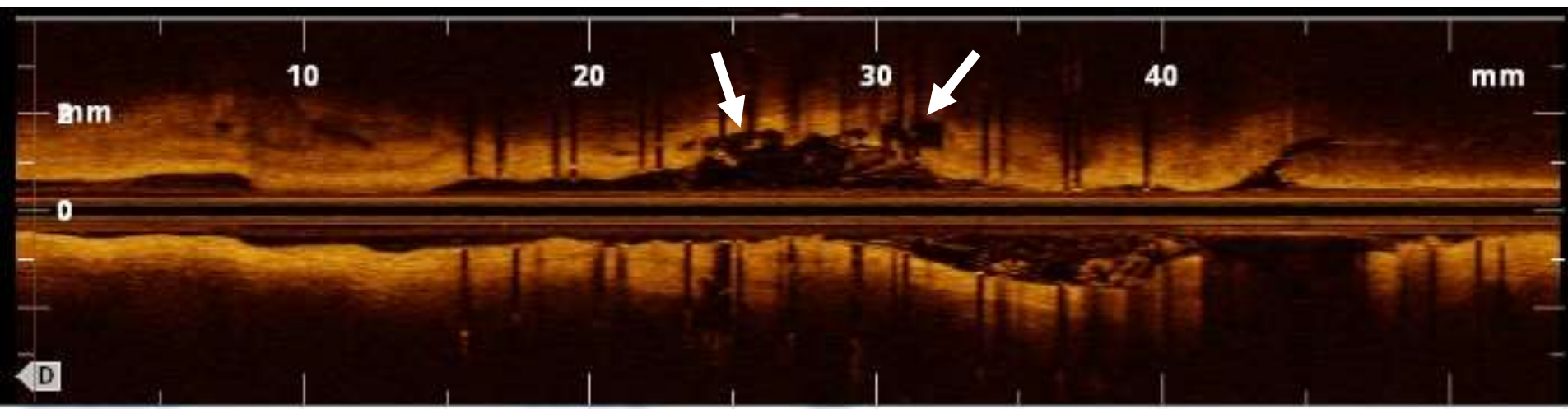
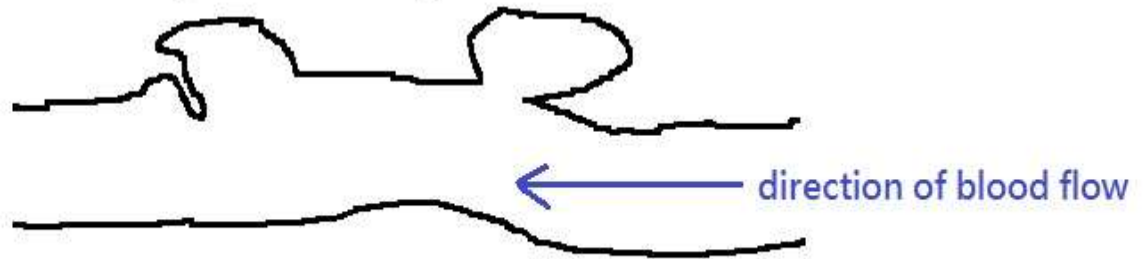


OCT image of middle DES showed the etiology of STEMI was plaque rupture.

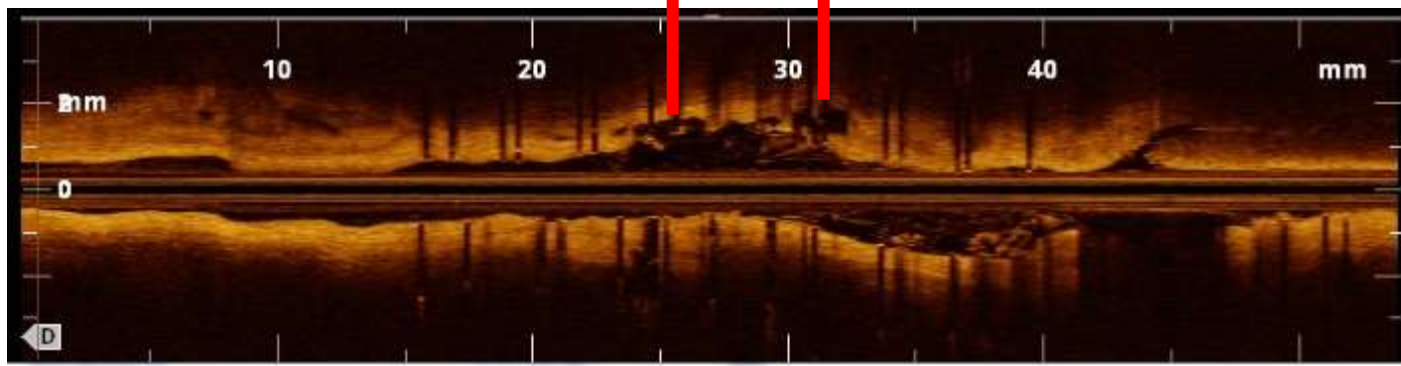
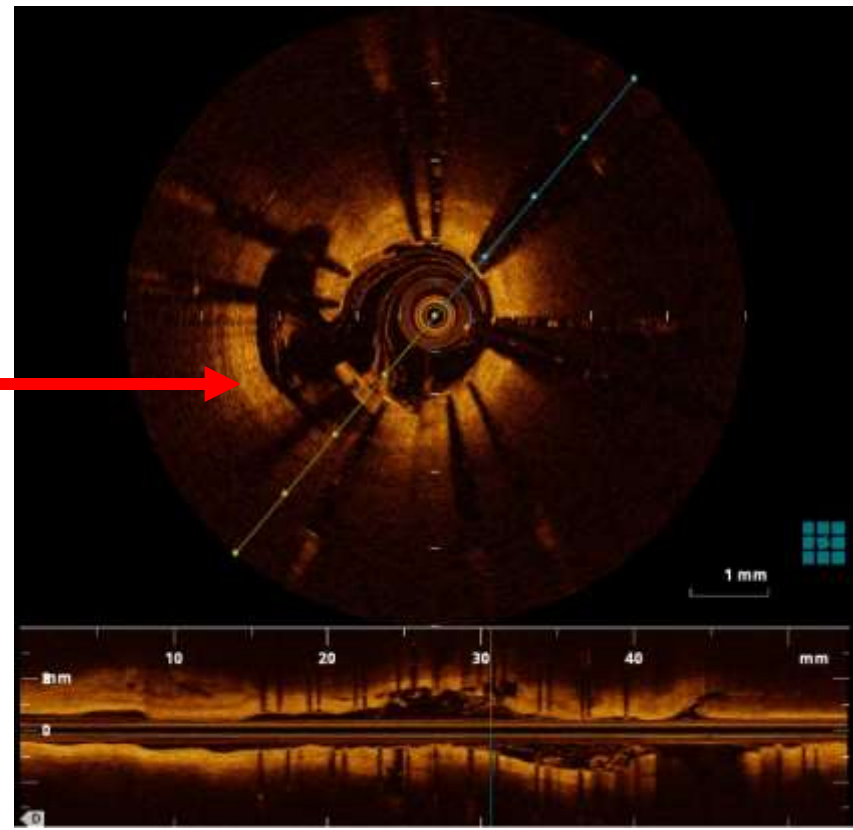
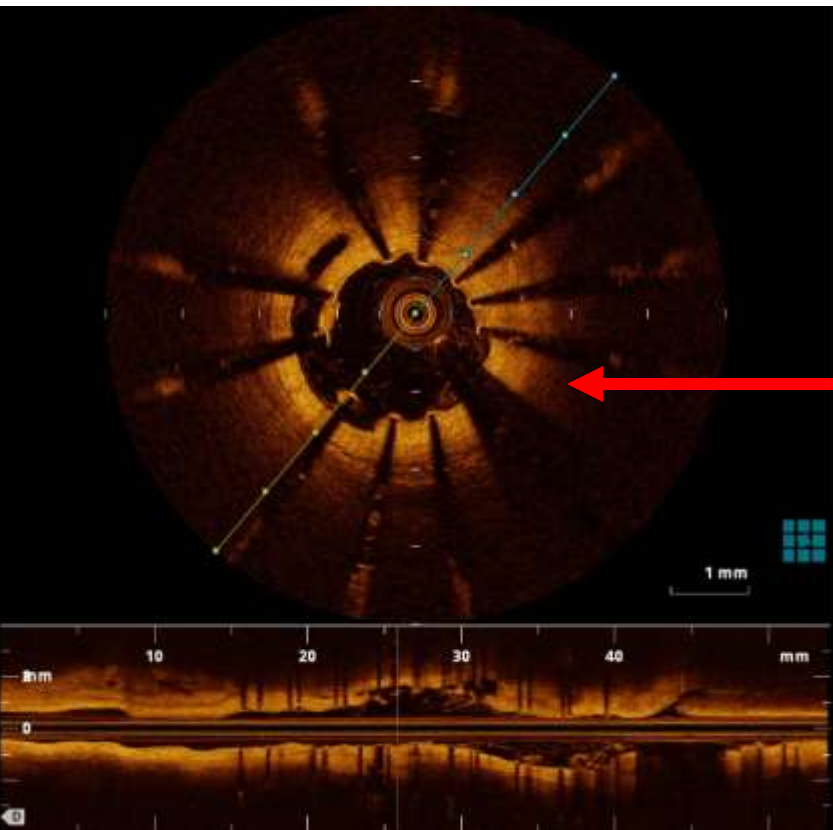


2 ruptured cavities;

one ruptured aperture against the direction of blood flow
the other aperture along the direction of blood flow

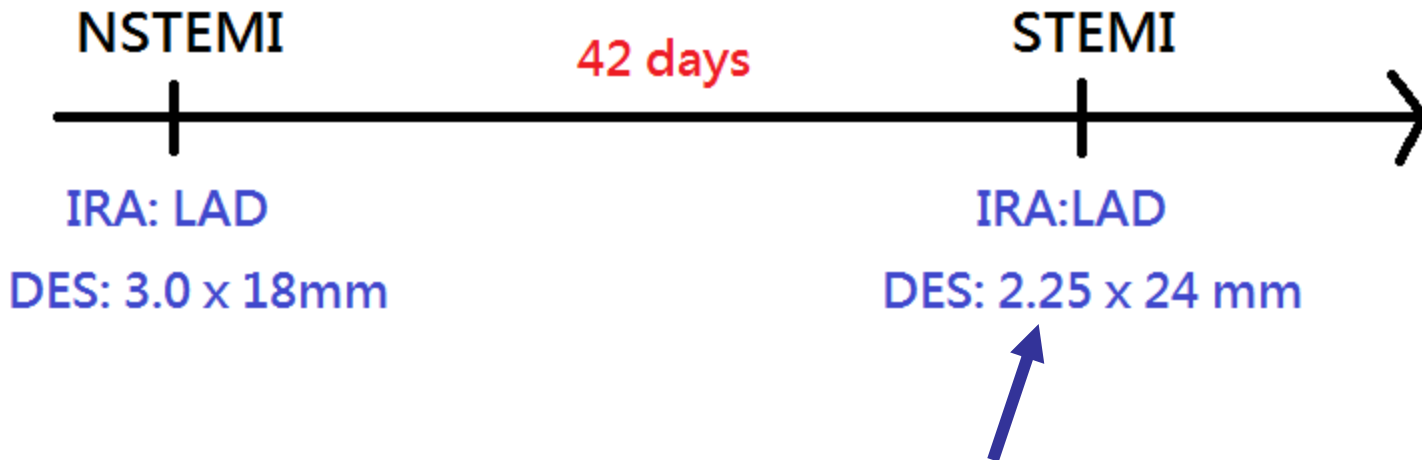


Cross section scan showed unhealed cavities.



Here we can get a brief summary of this patient

- 2 episodes of AMI on a male patient with **RA**.



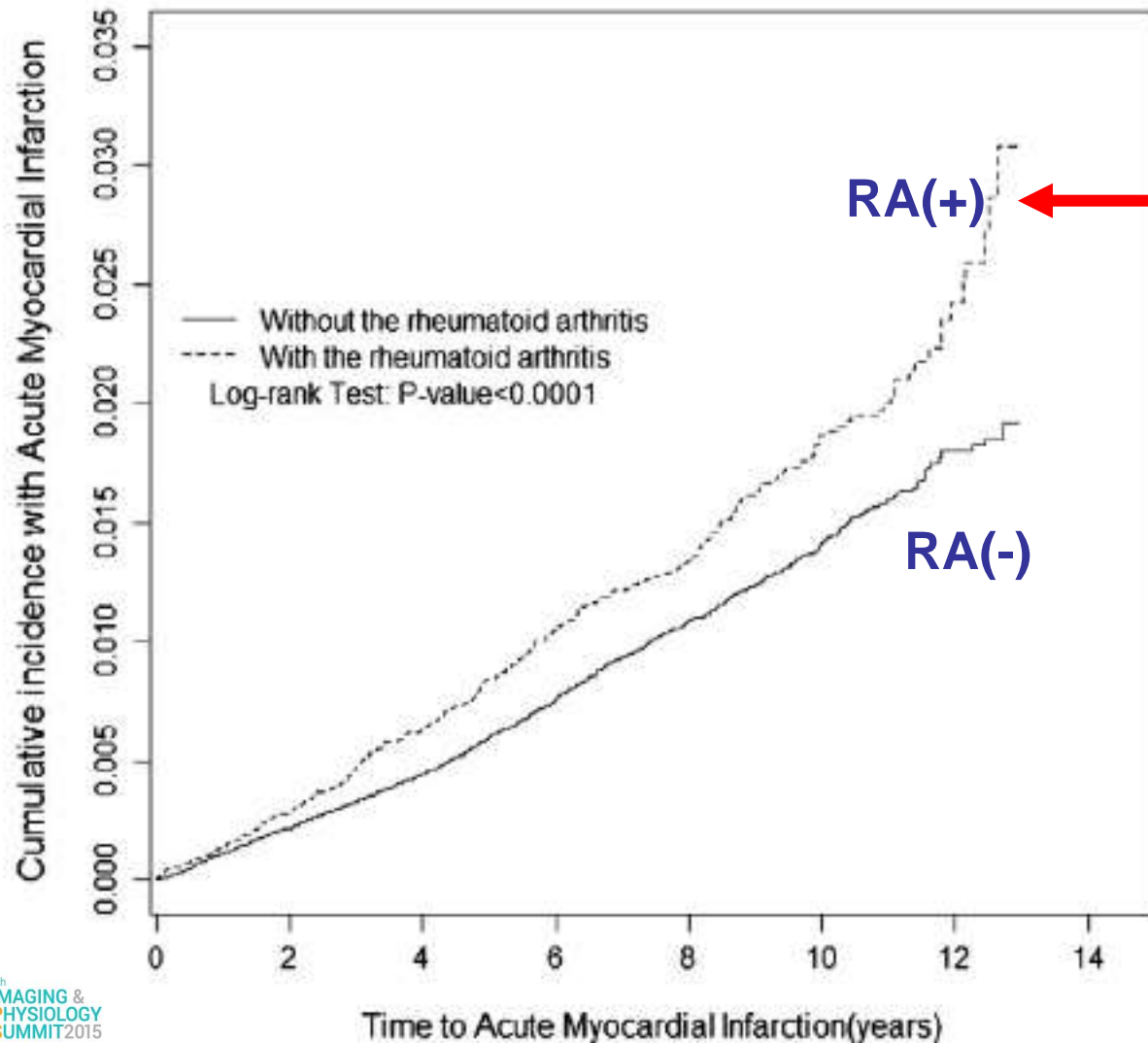
OCT showed unhealed ruptured cavities with high risk of turbulent flow / ST

Therefore, the culprit of STEMI is still a candidate culprit in such a patient with higher AMI risk.

What can I learn from OCT of this case?

The issue of duration of DAPT

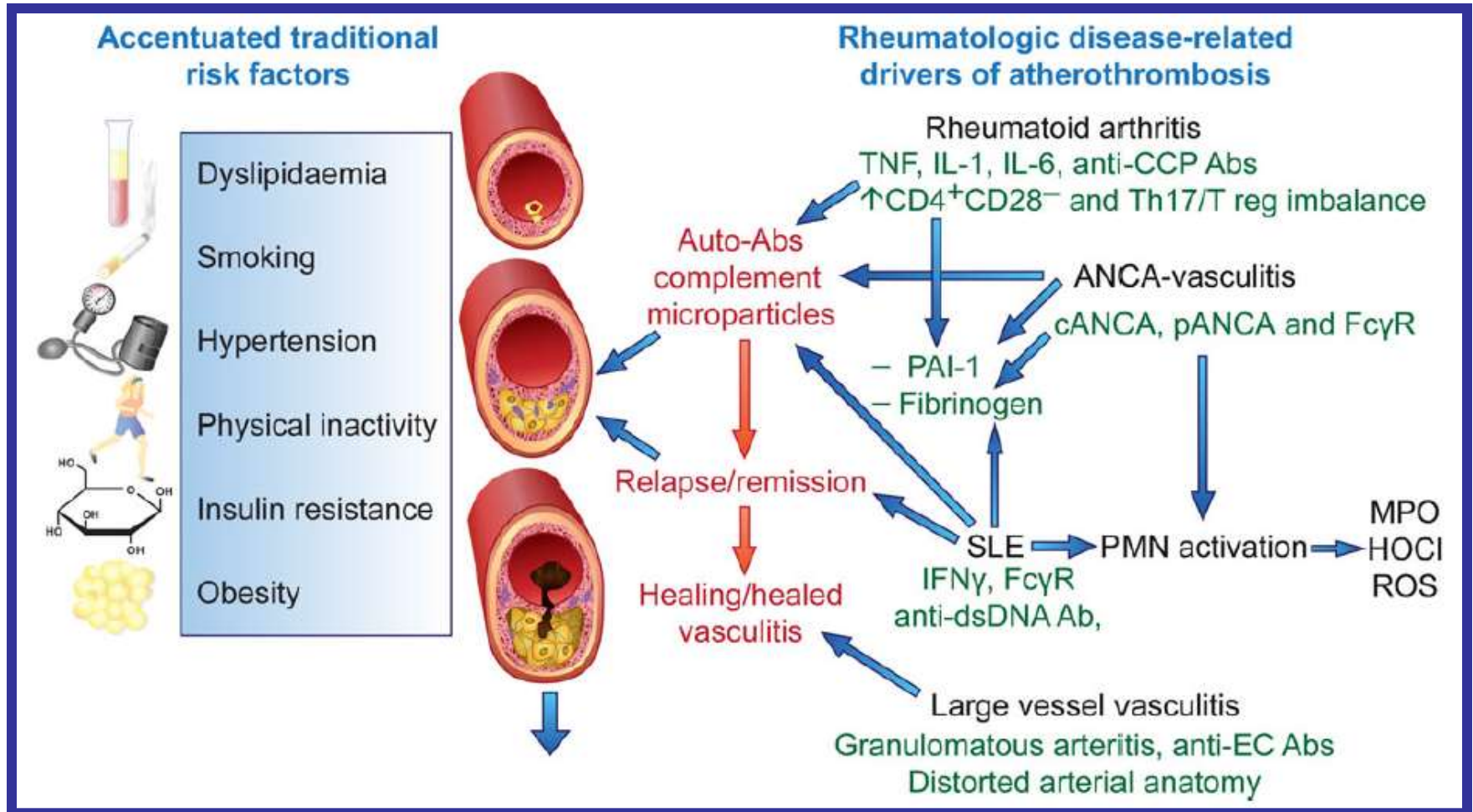
Patients with RA have **38%** increased risks for AMI than those without RA



38% higher risk for AMI, especially in male

Int J Cardiol 2013; 68:
4750–4754

Easy plaque progression, rupture, and delayed healing at ruptured sites



Conclusion

- OCT evaluation after primary PCI might be **necessary** for **high-risk** patients to evaluate plaque progression and delayed healing (e.g. patients with RA).

Some suggestions:

- **After DES**, at least one follow-up at 12M by **angiography + OCT**.
- If OCT shows risks of ST, such as uncovered strut / unhealed ruptured cavities, **prolonged DAPT is suggested**.
- **Statin** for plaque stabilization



**Thanks for
your
attention !**

