

# Recurrent Spontaneous Coronary Artery Dissection in an Elderly Male with History of Giant Cell Arteritis and Polymyalgia Rheumatica: A Case Report

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## Introduction

### •Background:

Spontaneous coronary artery dissection (SCAD) is a rare cause of acute coronary syndrome that is more frequently observed in young women without typical cardiovascular risk factors. However, SCAD can also present in elderly patients, especially those with underlying autoimmune conditions such as giant cell arteritis (GCA) and rheumatoid arthritis. This case highlights the management challenges of recurrent SCAD in an elderly male with multiple comorbidities.

### •Objective:

To discuss a complex case of recurrent SCAD in an 80-year-old male with a history of GCA, suspected polymyalgia rheumatica (PMR), RA, and secondary Sjögren's syndrome, focusing on treatment challenges and management strategies.

## Case Description

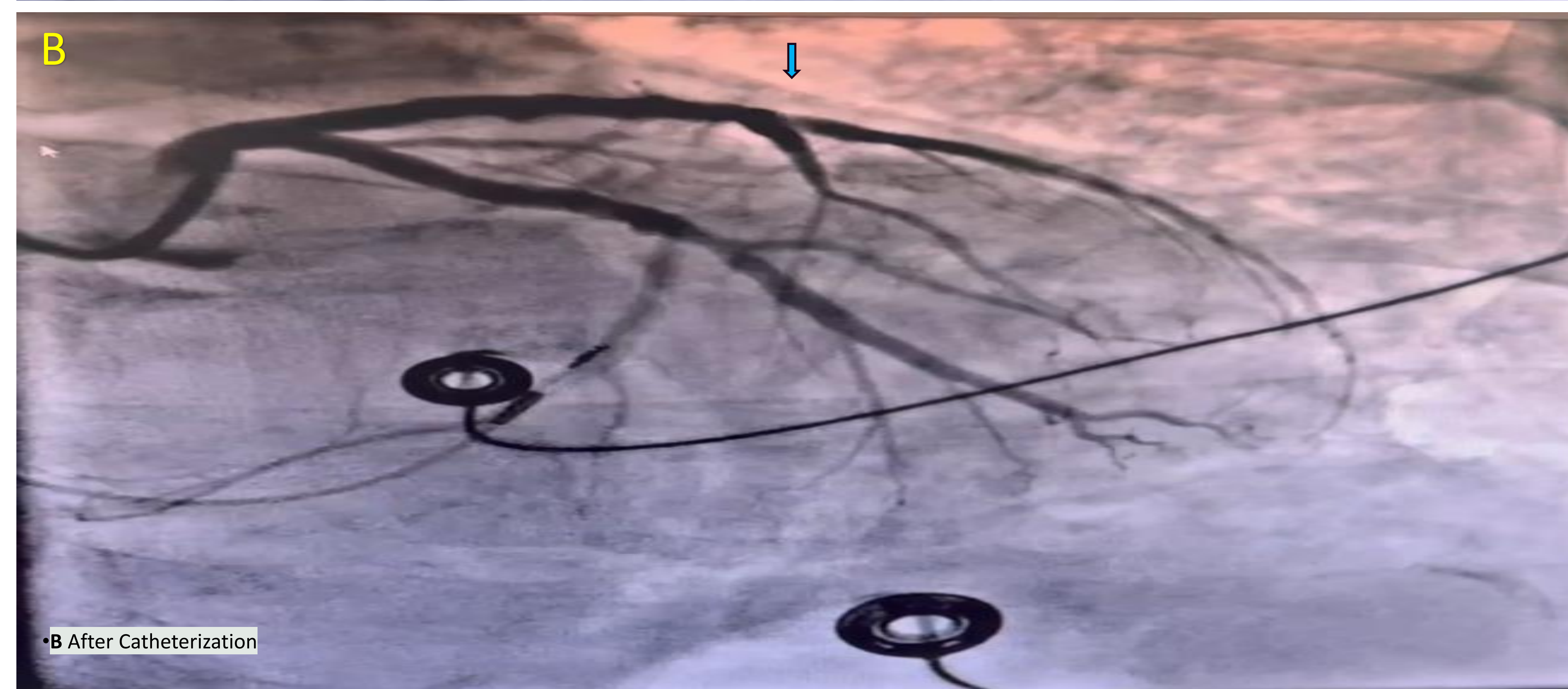
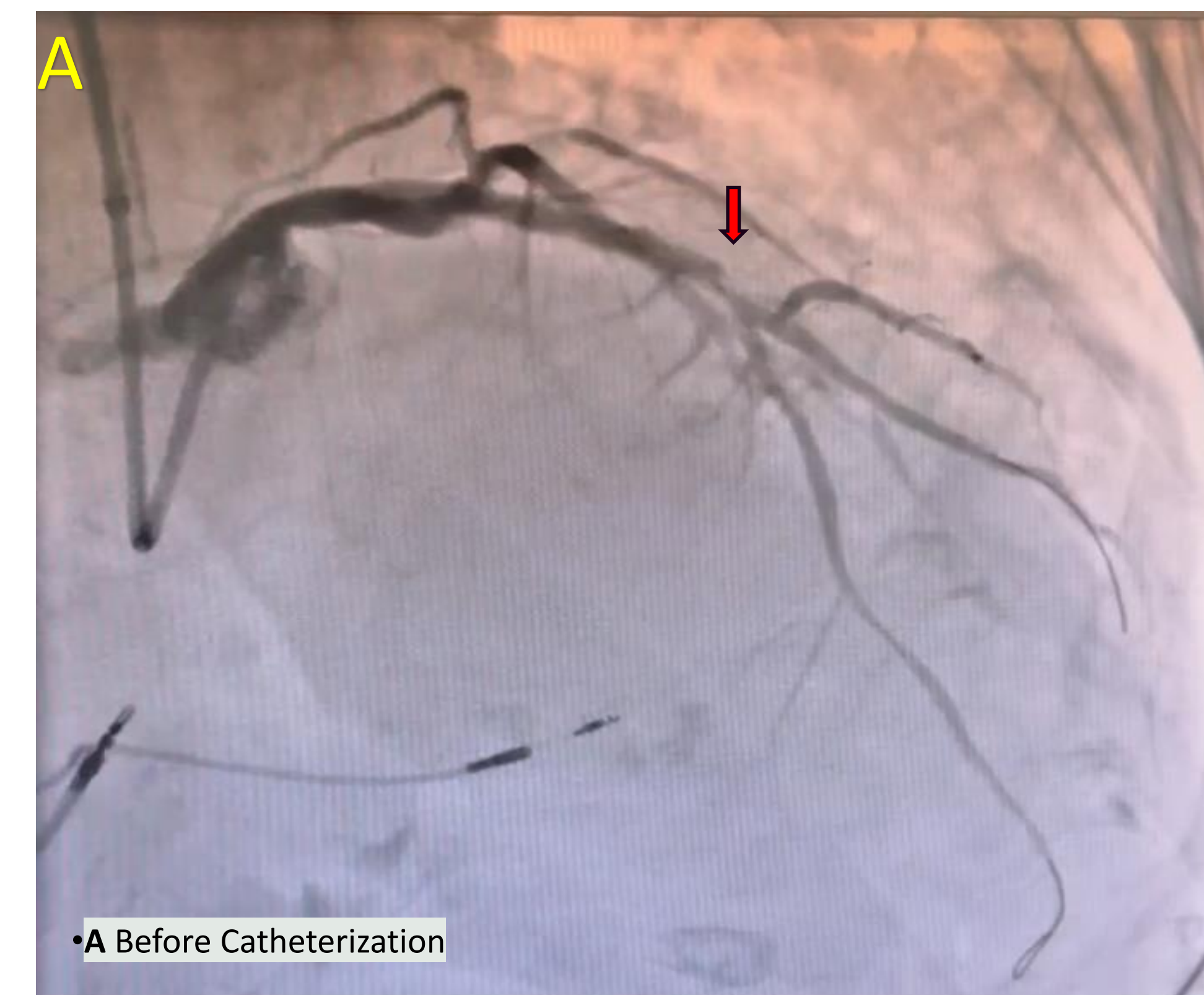
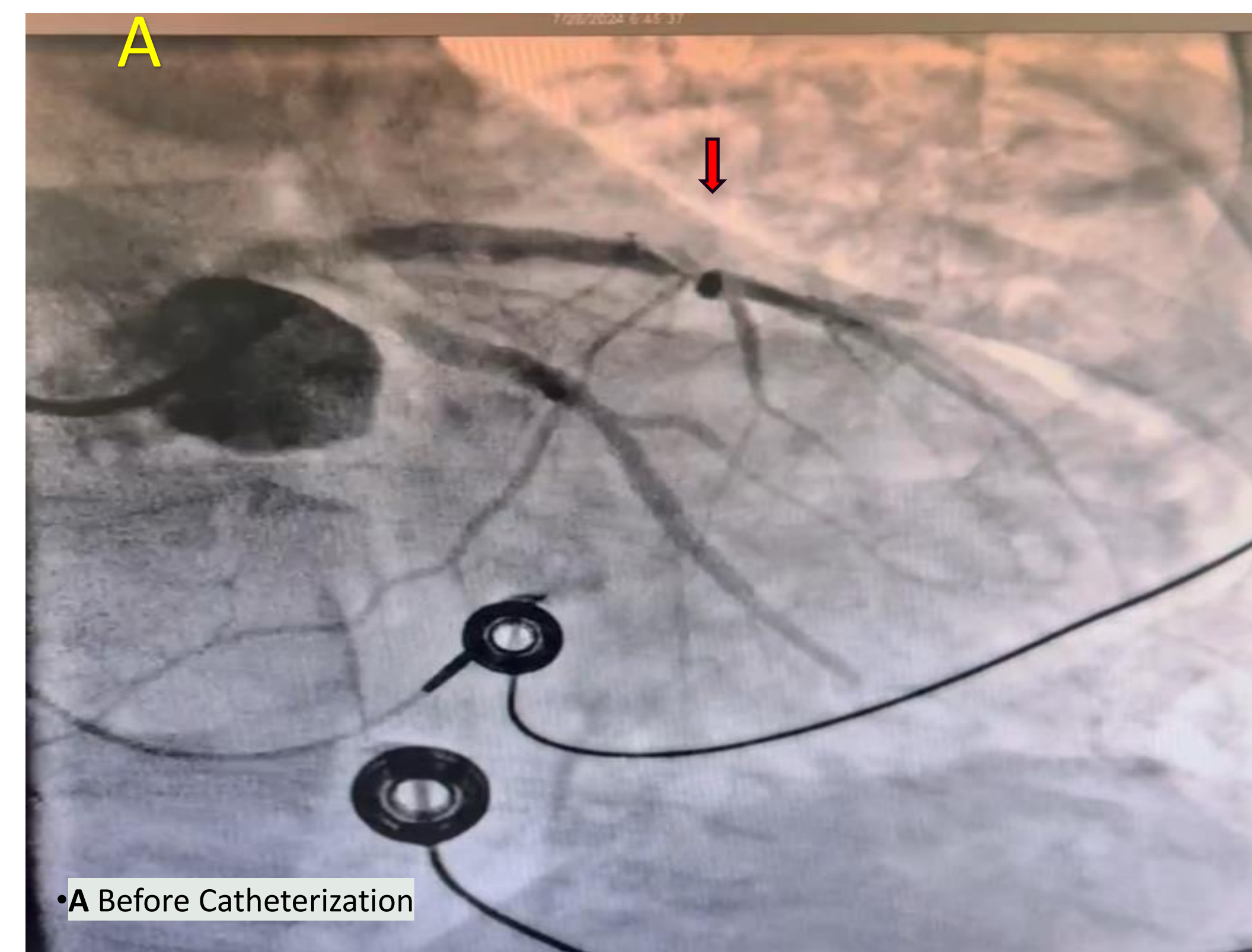
An 80-year-old male with a history of biopsy-proven GCA, PMR, RA, secondary Sjögren's syndrome, and atrial fibrillation status post failed ablation and subsequent AV nodal ablation with permanent pacemaker placement. The patient also had a previous episode of SCAD in 2012 involving the proximal LAD (type I SCAD) and RCA (type II SCAD) status post placement of two drug-eluting stents (DES).

### •Presentation:

- Presented with acute chest pain
- EMS administered aspirin and sublingual nitroglycerin, resulting in chest pain resolution by the time of arrival at Emergency Department.
- Initial workup revealed a troponin elevation to 161 ng/L, which peaked at 84,000 ng/L on repeat testing, then downtrended.
- EKG showed left bundle branch block versus paced rhythm, consistent with his 99% right ventricular pacing noted on prior device interrogation.
- Overnight, the patient was started on a nitroglycerin drip. Next morning, he experienced severe recurrence of chest pain and was taken emergently to the Cath Lab.

### •Intervention:

- **Cardiac catheterization revealed a 99% occlusion in the mid-LAD, distal to the prior stent, with features consistent with SCAD.**
- Emergent PCI was performed with placement of a 38 mm drug-eluting stent in the mid-LAD.
- RCA was noted to be without significant pathology.



## Discussion

### Challenges in SCAD Management

#### •Limited Options for Optimal GDMT:

Due to medication intolerance and hypotension, the patient's treatment options for guideline-directed medical therapy were limited.

#### •Balancing Antithrombotic and Anticoagulation Therapy:

Managing SCAD alongside atrial fibrillation requires careful consideration to avoid the risks associated with combined antithrombotic therapy for coronary artery disease and anticoagulation for atrial fibrillation.

#### •Role of Autoimmune Disease:

GCA and other autoimmune diseases may contribute to recurrent SCAD through increased vascular fragility and inflammation. Management in such cases requires a tailored approach to address both cardiovascular and systemic inflammatory conditions.

#### •Recurrent Admissions:

The patient's clinical course was complicated by infectious issues and sepsis, requiring comprehensive management involving multiple specialties.

## Conclusion

### •Key Takeaways:

This case illustrates the complex interplay between SCAD, heart failure, and autoimmune disease in an elderly patient. Individualized management and close monitoring for complications are essential, with a strong emphasis on interdisciplinary coordination.

### •Future Directions:

Further research is needed to establish optimal treatment strategies for SCAD in patients with multiple comorbidities, particularly those with underlying autoimmune diseases.

## References:

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- Hayes SN, Kim ES, Saw J, et al.** Spontaneous Coronary Artery Dissection: Current State of the Science: A Scientific Statement from the American Heart Association. *Circulation*. 2018;137(19)