Inflate to Innovate: A Stentless Strategy for High-Lipid Thrombotic Lesions

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64-year-old male with history of hypertension, diabetes mellitus, hyperlipidemia and chronic kidney disease presented with typical angina and electrocardiogram evidence of an established inferior myocardial infarction.

Target Lesion

Diagnostic coronary angiogram revealed severe disease extending from proximal to mid segment of right coronary artery with visible thrombus seen but preserved TIMI 3 flow.

Strategy

Intravascular ultrasound (IVUS) confirmed a high lipid burden with residual thrombotic material and no significant calcification. A DCB-only strategy was chosen due to the diffuse nature of the lesion and the intent to minimize stent-related complications, especially in a patient with chronic kidney disease and diabetes.

Lesion preparation included high-pressure scoring balloon pre dilatation and thrombus aspiration to optimize luminal gain and achieve effective plaque modification. A Paclitaxel-coated drug-coated balloon (DCB) was then deployed.

Final result

Post procedure angiogram showed excellent angiographic outcomes with no flow-limiting dissections and preservation of TIMI 3 flow. The patient was discharged well and remained asymptomatic at follow-up with no cardiovascular events.