

When Cracking the Calcium Creates a New Challenge: An IVUS-Guided Approach to a Giant Post-IVL Fissure

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Intravascular Lithotripsy (IVL) effectively modifies calcified lesions by creating fractures. However, an extensive fracture can present a new challenge: achieving optimal stent apposition while increasing the risk of coronary perforation. We present a case illustrating the management of this clinical dilemma. A patient with a severely calcified LAD lesion underwent complex PCI using a multimodality approach with cutting balloons and IVL. IVL created a giant calcium fracture, which was confirmed by IVUS. A drug-eluting stent was deployed and meticulously post-dilated. Final IVUS imaging confirmed good stent expansion; however, complete apposition against the extensively fractured calcium segment was deliberately not achieved to mitigate the high risk of coronary rupture. The procedure was concluded with a successful angiographic result and no complications. In these cases, intravascular imaging is essential to guide strategy and determine a safe procedural endpoint.

