

One minute craft: 'How to cross an 'uncrossable' acute occlusion after rotablation'

Argyrios Ntalianis¹, Alexia Mareti¹, Marini Tselegkidi¹, Sotirios Floros¹, Stelios Kastellanos¹, Panagiotis Kastanis¹, Panagiota Mitropoulou¹, Fani Fouka¹, Maria Athanasiou¹, John Kanakakis¹

Alexandra General Hospital, Athens, Greece



Disclosures

None



Present history

Male 75 years old

- Arterial hypertension
- Permanent pacemaker
- Recent onset angina

<u>Electrocardiogram:</u> non- diagnostic (pacemaker)

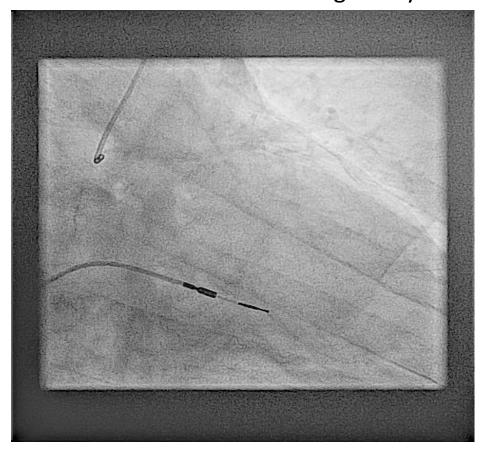
<u>Heart ultrasound:</u> normal left ventricular ejection fraction, normal dimensions of both ventricles and mild mitral regurgitation

Single-photon emission computed tomography: ischemia in the inferior wall



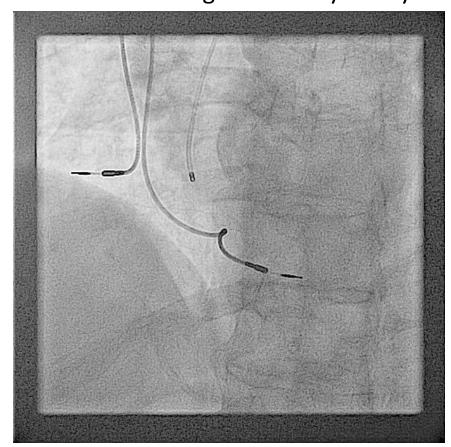
Coronary angiography

Left anterior descending artery

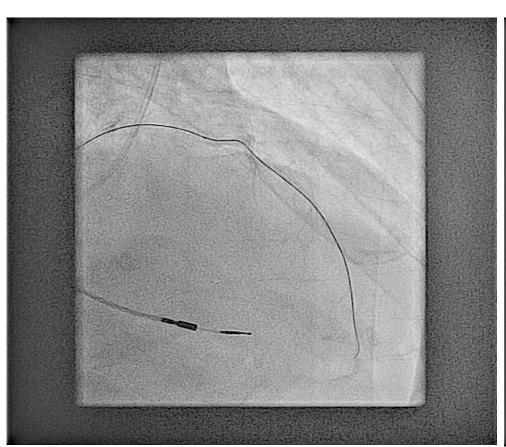


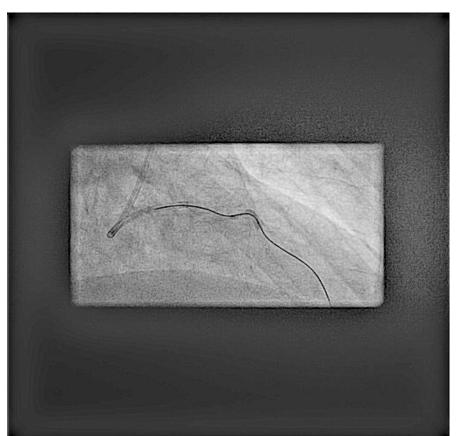
Complex mid-Left anterior descending calcified lesion with aneurysm-very tortuous vessel

Non-dominant right coronary artery



PCR PCI of the left anterior descending artery



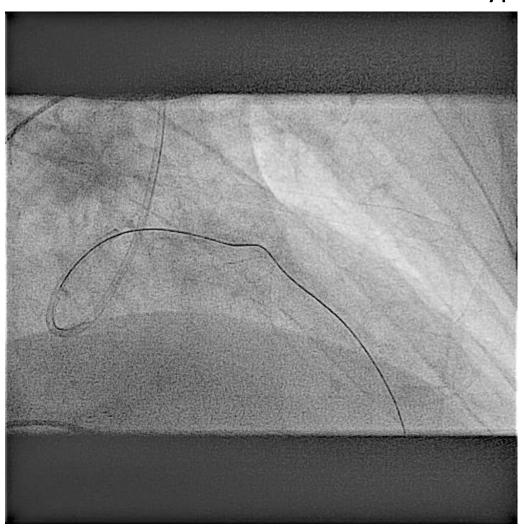


- Extremely difficult wiring
- Failed attempts with CHOICE and CHOICE PT wires supported by OTW balloon
- Successful wiring with a FIELDER XT
- Undilatable lesion 'Dog bone' effect (right panel)



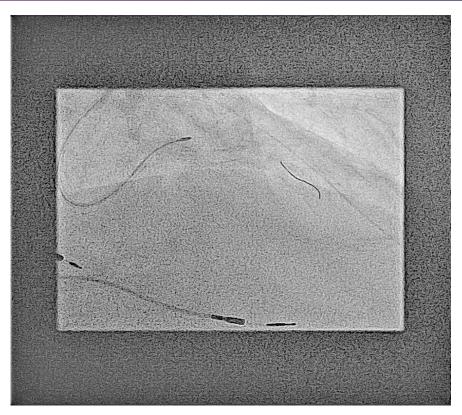
PCI of the left anterior descending artery

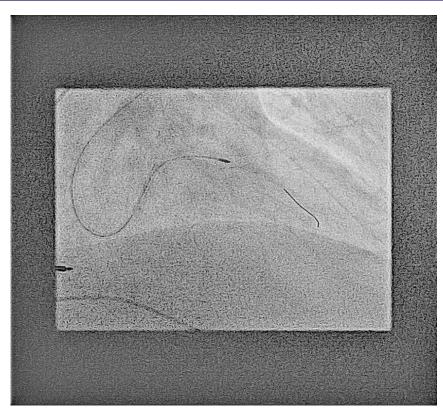
Sub – optimal result after several dilatations – type C dissection





PCI – Switch to Rotablation



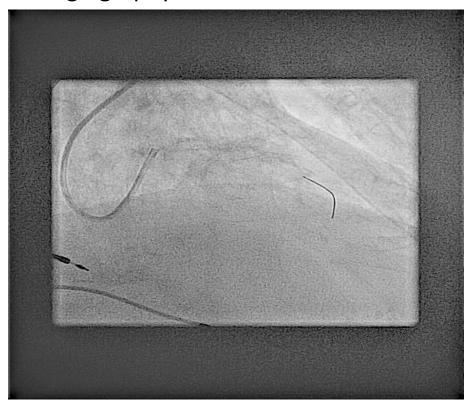


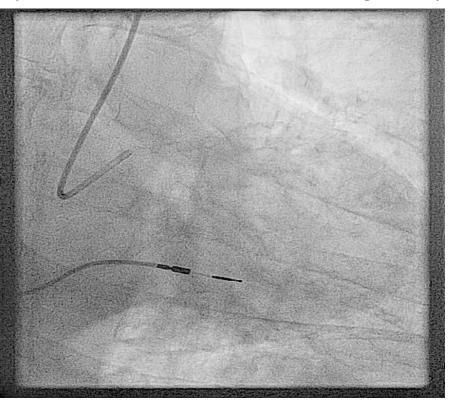
- Not feasible to advance the rota wire far distal to left anterior descending artery
- Attempt for rotablation with a 1.25mm burr
- Many unsuccessful attempts to cross
- After several attempts, the burr launched at the edge of the radiopaque portion of the rota wire and passed through the calcified lesion



Rotablation complicated with acute LAD occlusion

- After the second passage of the 1.25 burr the patient became agitated and complained for severe retrosternal pain.
- Electrocardiogram recorded on the screen showed ST elevation
- Angiography showed total occlusion of the proximal left anterior descending artery



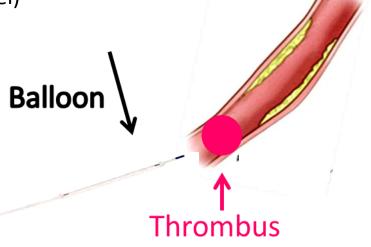


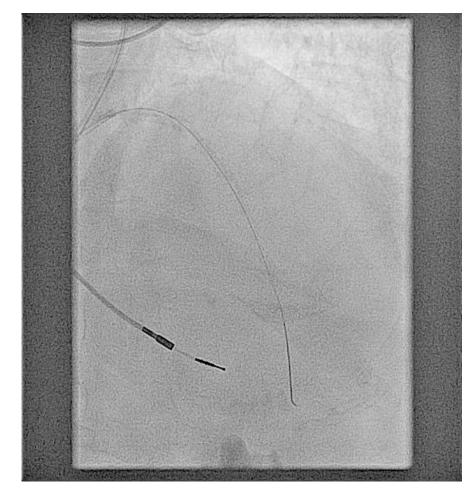
- Trying to advance an EXPORT aspiration catheter rota wire was lost
- Unsuccessful attempts to wire the proximal segment with CHOICE & CHOICE PT wires



One minute craft; Crossing the occluded LAD

A desperate effort to push and advance a 2.5 x12 mm balloon with no wire support through the proximal occlusion was successful! (left panel)





- After advancing the balloon, the flow was restored, the blood pressure normalized and the patient became asymptomatic
- Finally, a CHOICE wire was placed in the distal LAD, a 2.5x12mm balloon was inflated in the proximal LAD and a 2.75x22mm Resolute Integrity was deployed (right panel)



Follow-up & Comments

- √ The patient was discharged two days after PCI
- √ 6 months later the patient is asymptomatic

✓ Take home message: Acute total coronary artery occlusion uncrossable with different wires it might be feasible to cross with careful balloon advancement especially when occlusion is located in the proximal segment of the coronaries