



## "Cracking and Nailing"

– PCI of a heavily calcified aorto-ostial RCA lesion

*Dr Sinjini Biswas, Dr Tom Johnson, Dr Julian Strange*

*Bristol Heart Institute*

*UK*

79 year old female

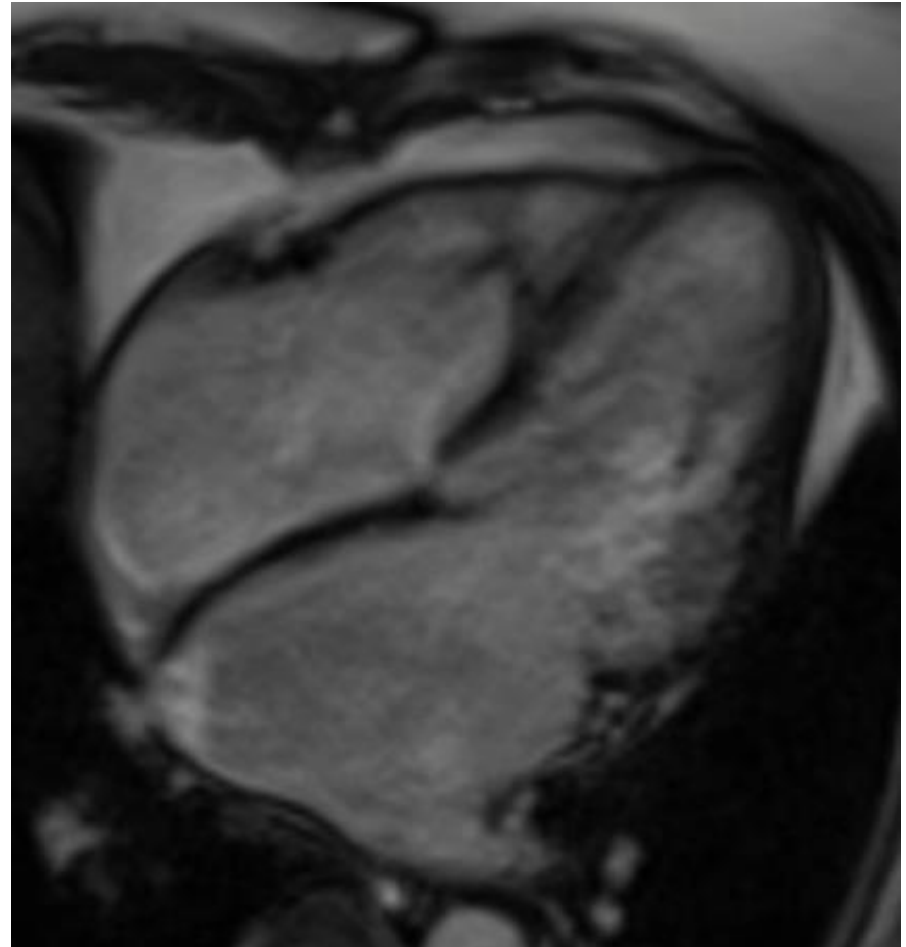
- Exertional chestpain & breathlessness

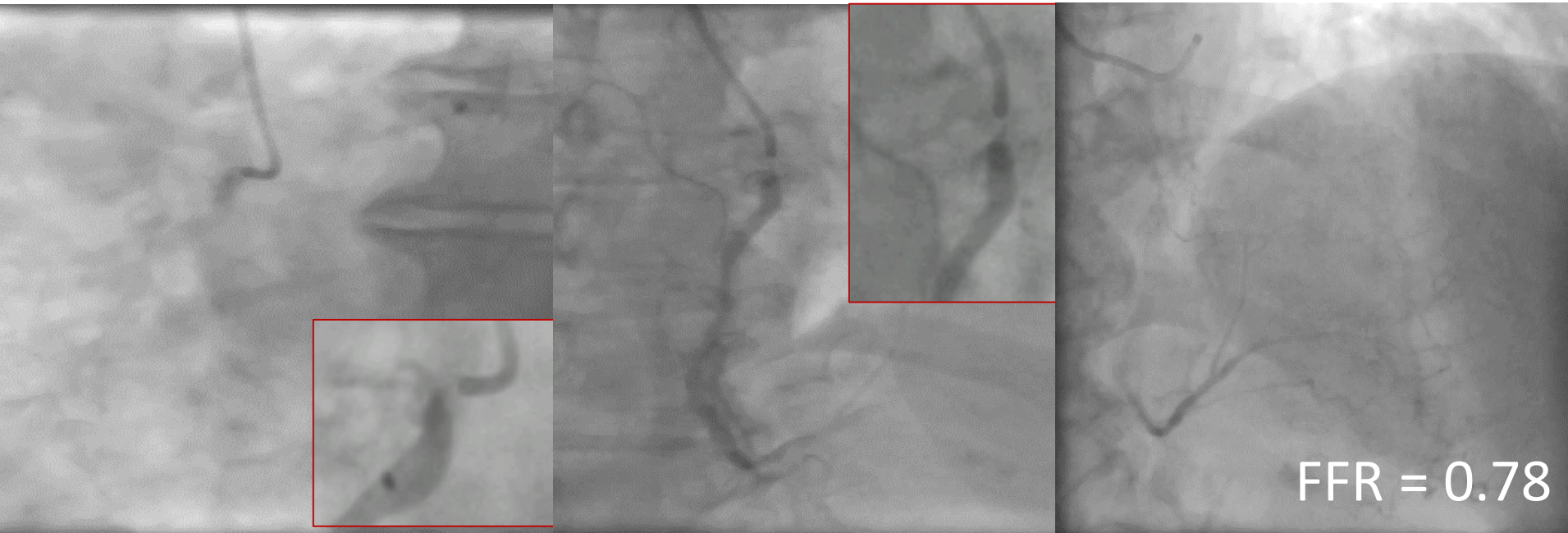
Comorbidities

- Stage 3 CKD (eGFR 41)
- AF – on apixaban

Cardiac MRI

- Severe LV dysfunction
- Moderate MR
- Inducible ischaemia mid inferior & basal inferolateral walls





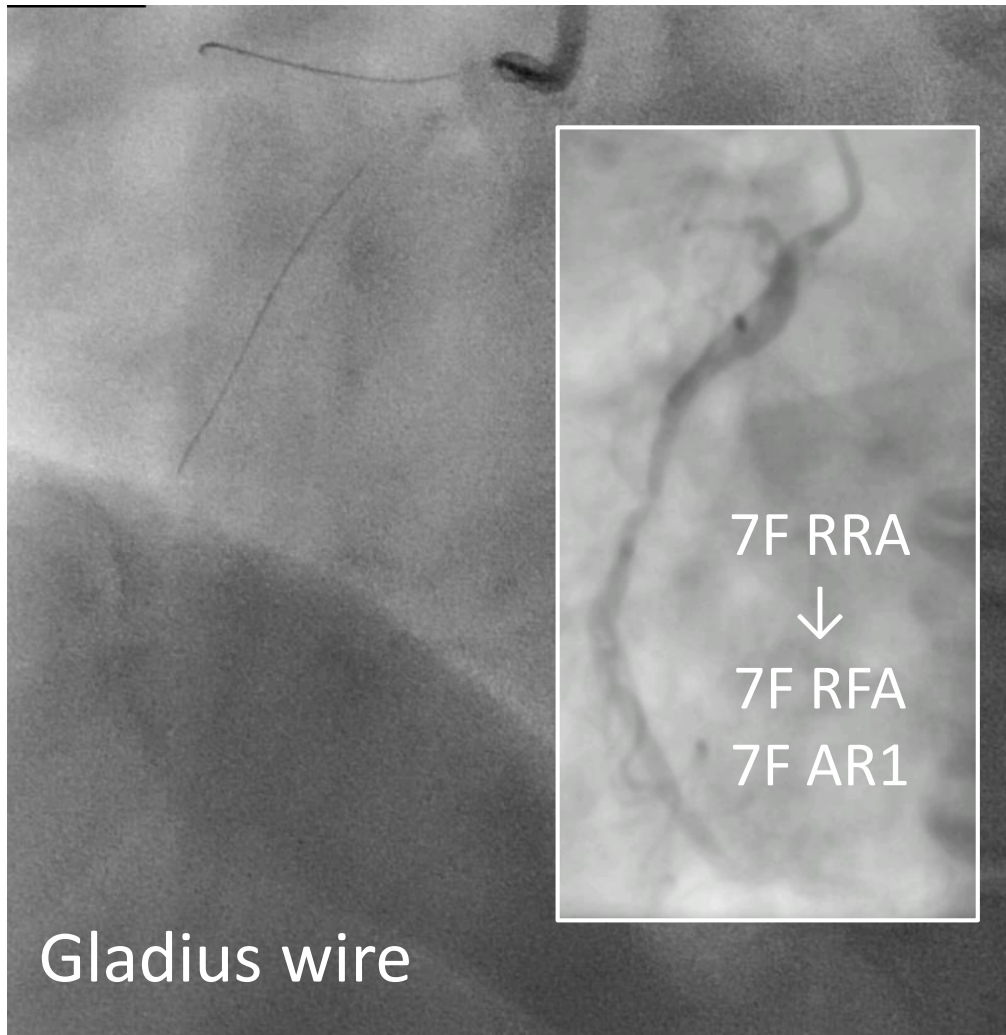
### Heart team discussion

- Offered CABG plus MVR at elevated risk
- Patient declined surgery (carer for husband)

In view of persisting angina despite multiple anti-anginals with inducible ischaemia – referred for PCI to RCA

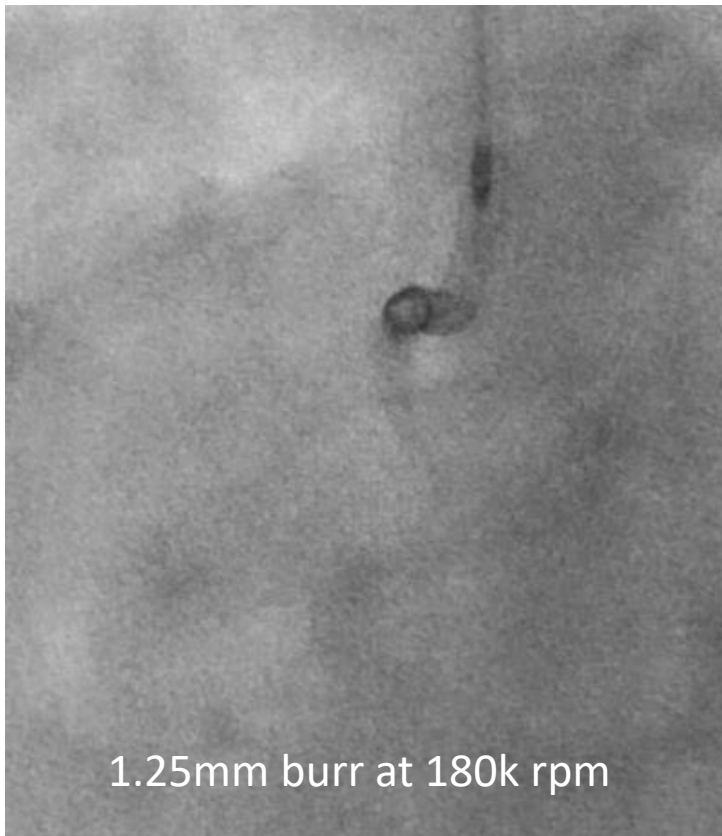
# Challenging guide & wire engagement\*

\* 60minutes before effective guide selection & Gladius wire cross



# Upfront rotational atherectomy

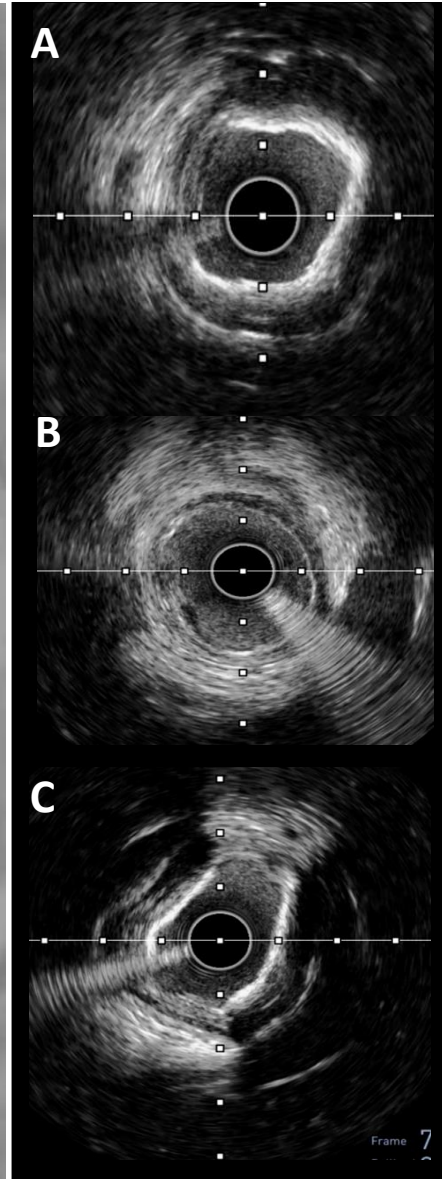
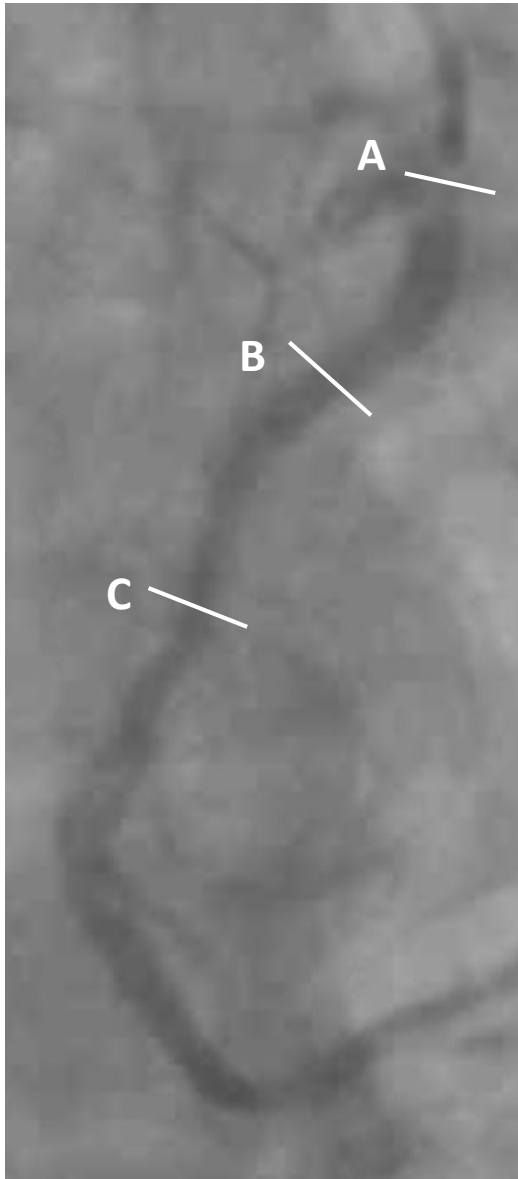
- Wire removed and re-wired with rota floppy wire



1.25mm burr at 120k rpm

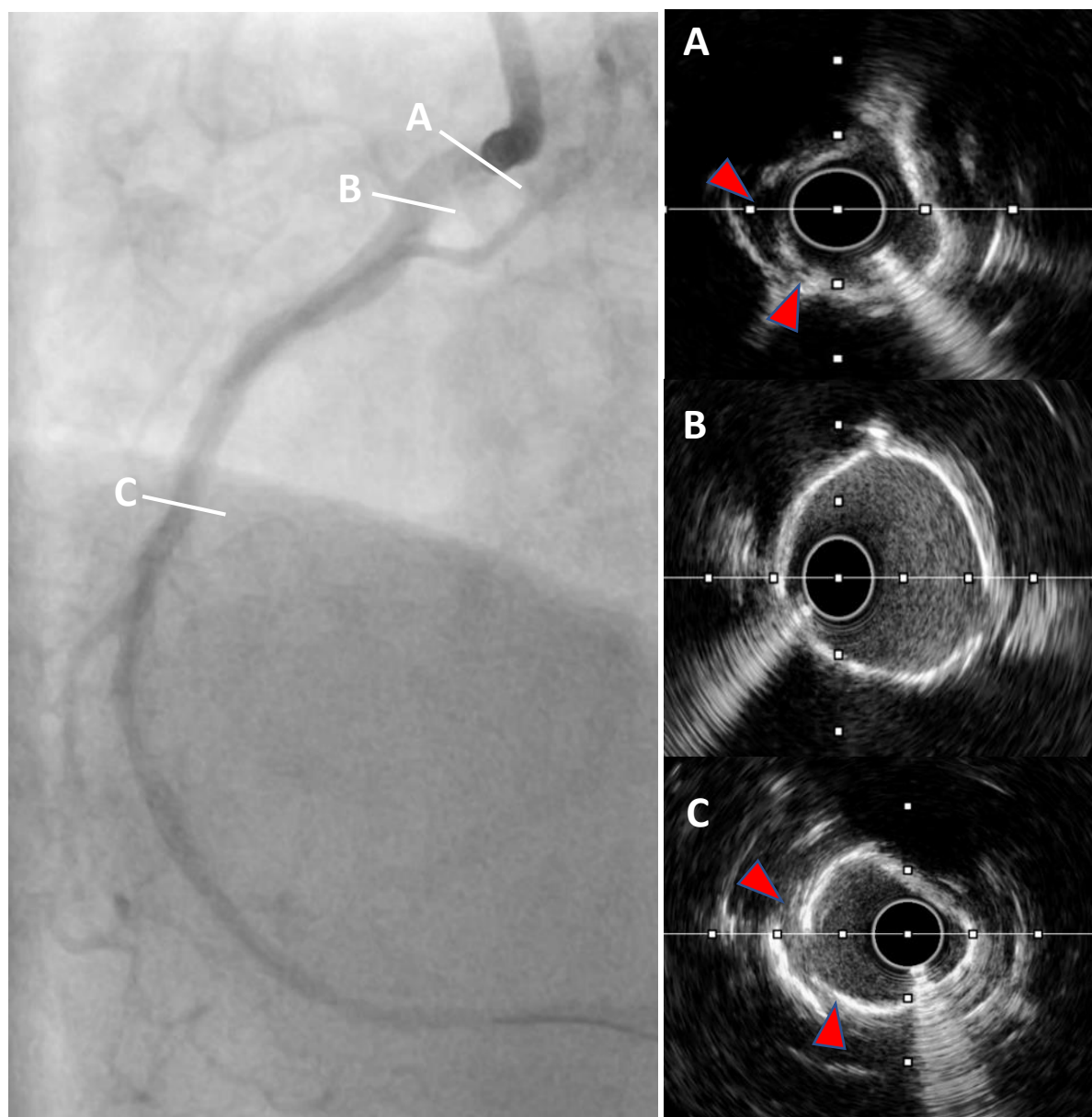
- Brief hypotension & bradycardia  
requiring atropine & metaraminol boluses

# IVUS guided calcium modification

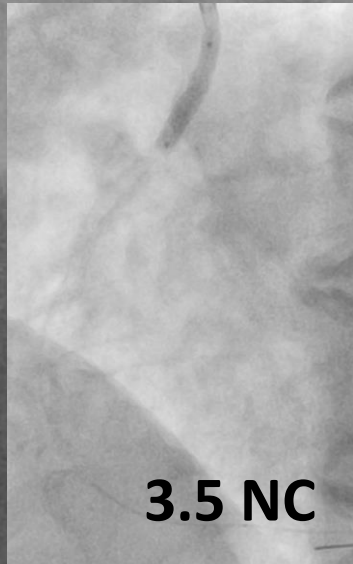




# IVUS evaluation of Shockwave modification



# Stent deployment on 7F guide extension

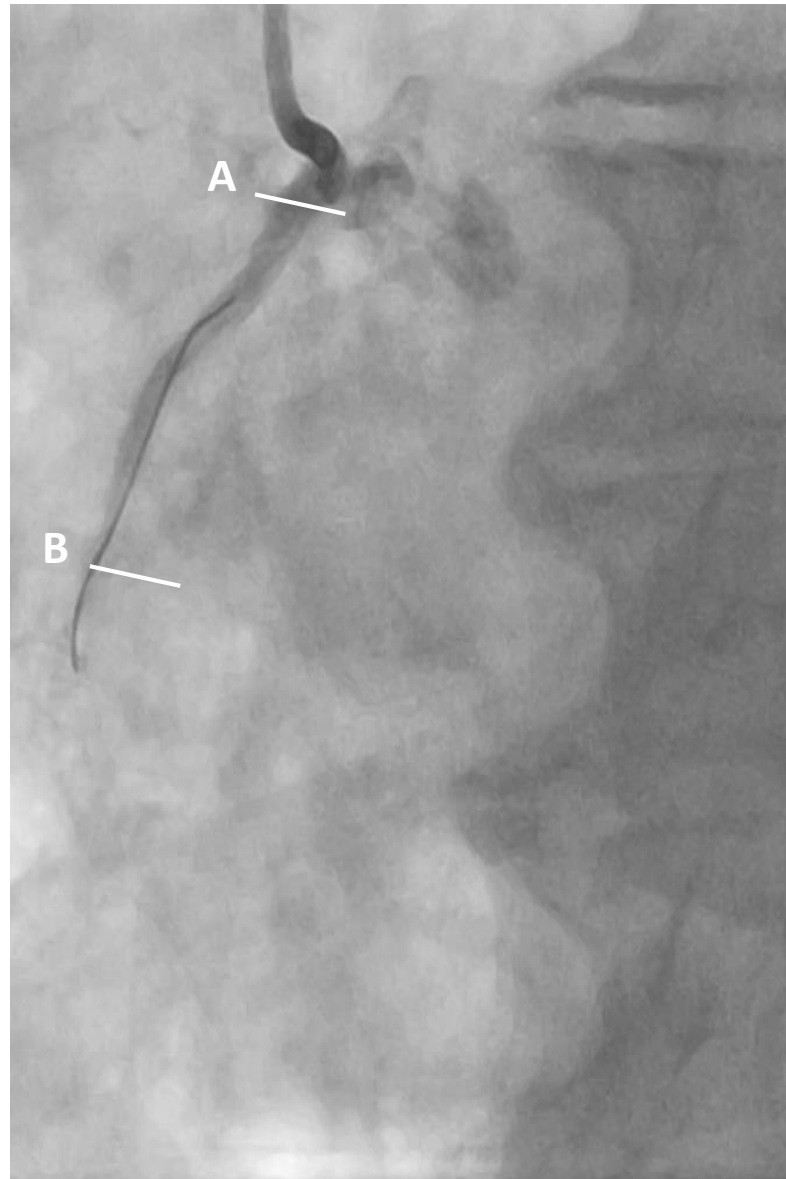
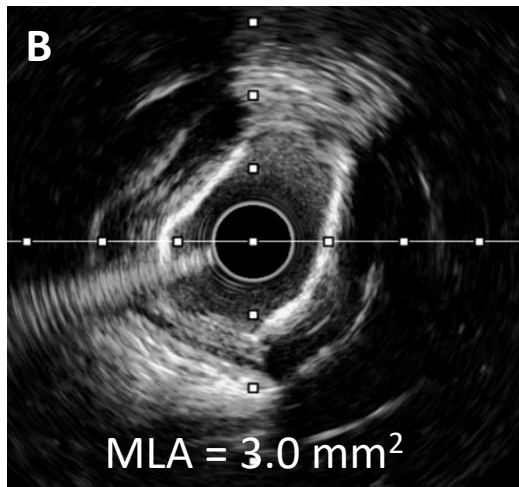
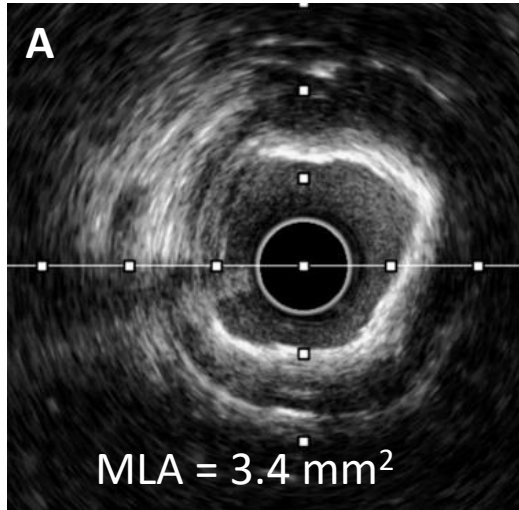


**3.0 x 48 Synergy DES**

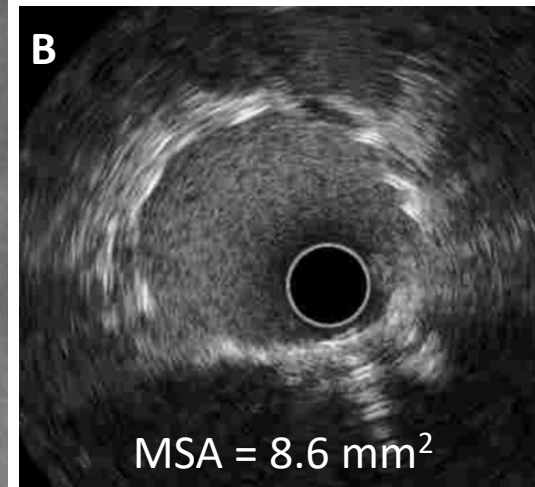
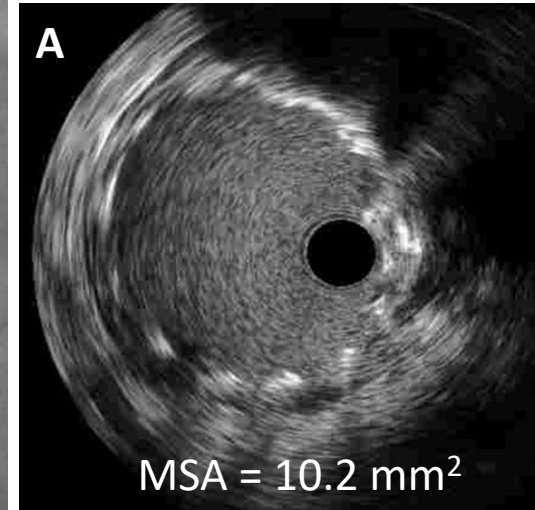


# Final Angiographic and IVUS images

**PRE**



**POST**



- **Aorto-ostial disease provides significant challenges**
  - Fibrocalcific tissue at ostium extends back into aorta and has poor yield
  - Appropriate guide/guide extension catheter selection
  - Difficult equipment delivery through diseased ostium
- **Uncrossable lesions = rotational atherectomy**
  - Slow speed rota may improve debulking
- **Intravascular imaging key to guiding intervention**
  - Choice of adjunctive plaque modification technology
  - Ensure adequate plaque modification before stenting
- **Intravascular lithotripsy and Cutting balloons have a complementary role to rotational atherectomy**