

# How did procedural technique influence outcomes in EBC MAIN?

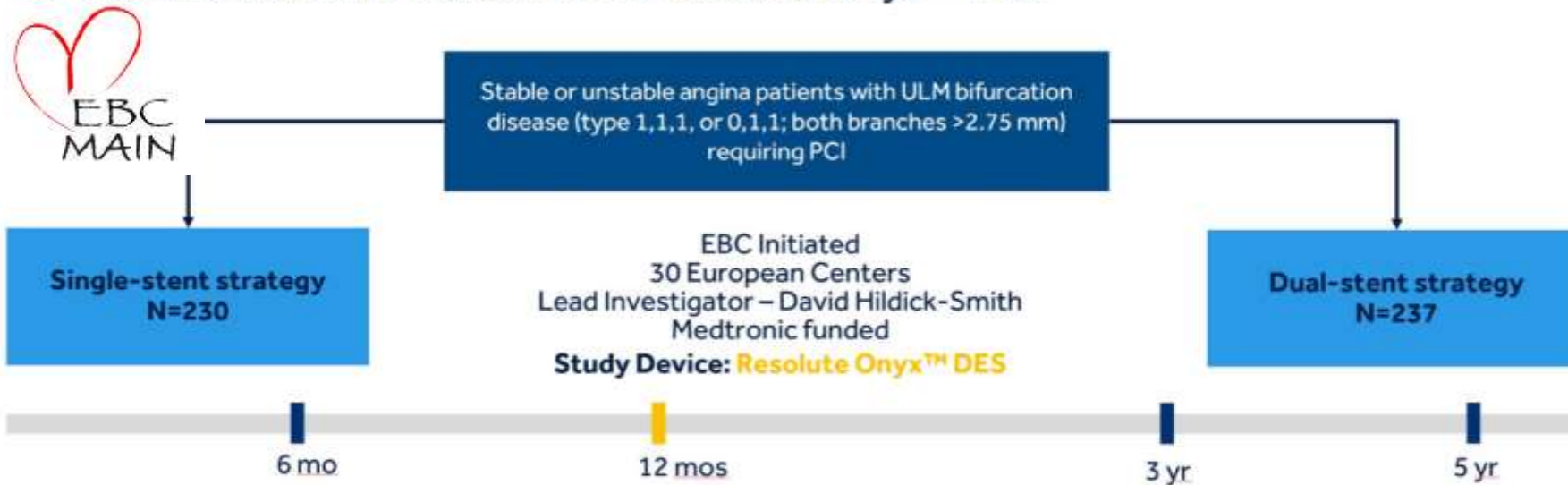
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# EBC MAIN study summary

## EBC MAIN TRIAL

Randomised comparison of provisional strategy vs a systematic dual stent strategy for true bifurcation LM disease with Resolute Onyx™ DES



**Primary endpoint:**

**Composite of death, MI and TLR at 1 yr**

**Secondary endpoints:**

Death, MI, TLR each at 12 months  
Angina status, ST, death, MI, TLR at 3 and 5 years

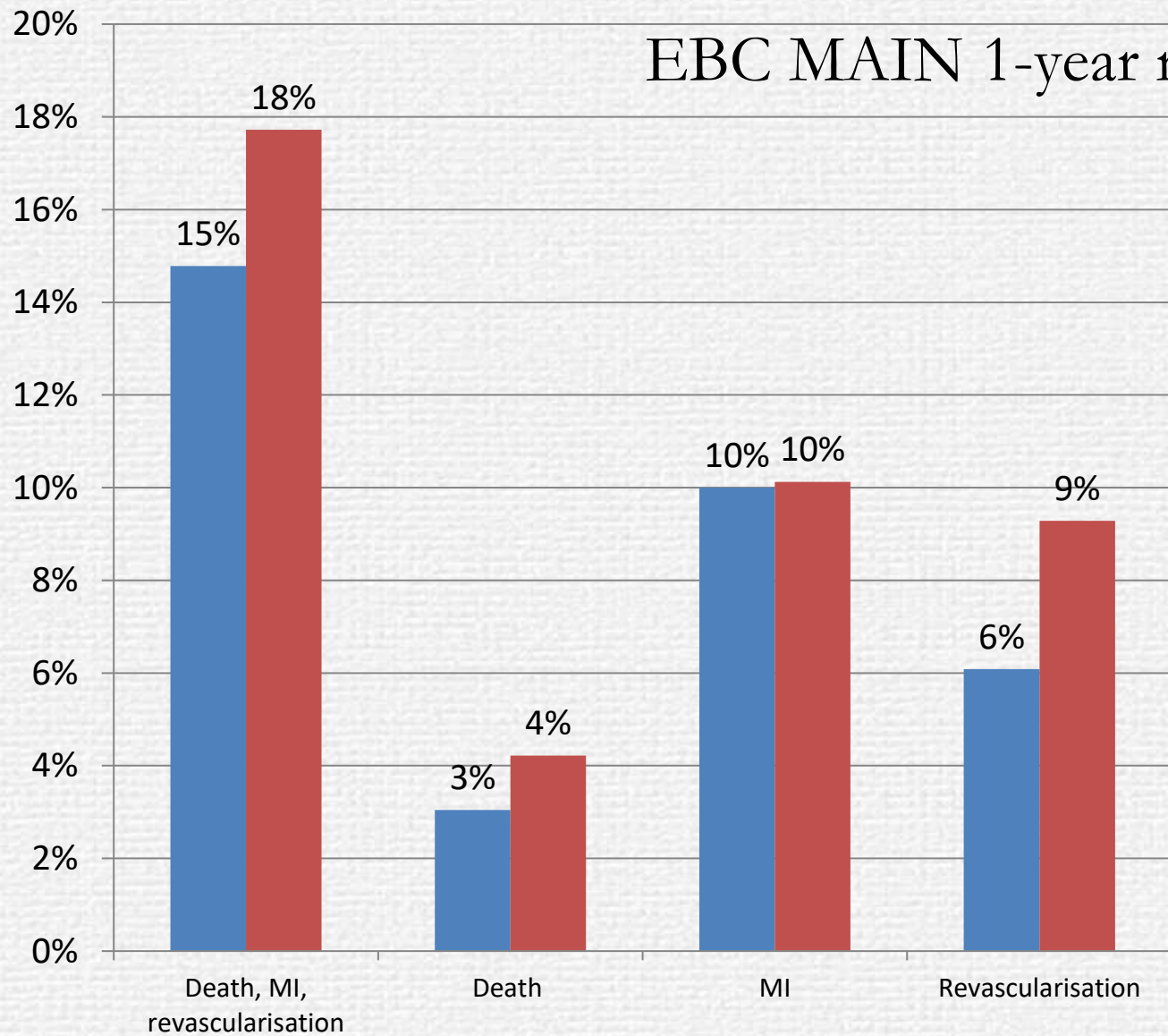
**Procedural endpoints:**

Procedural and technical success  
Procedural and in-hospital MACE  
Procedure duration, fluoroscopy and cost

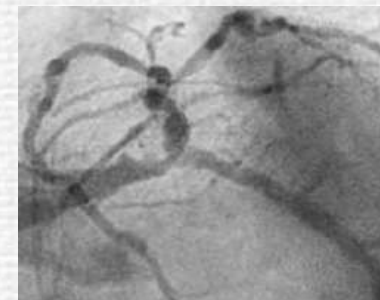




# EBC MAIN 1-year results



- Stepwise provisional
- Systematic dual

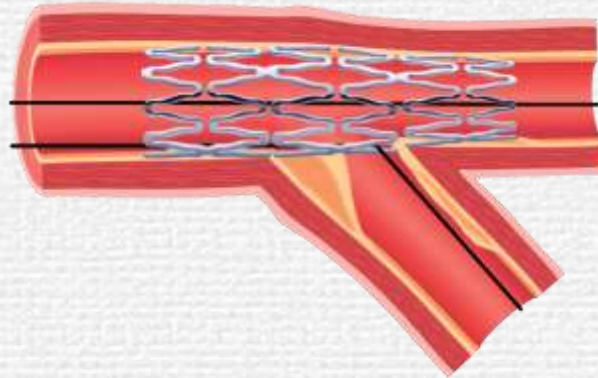
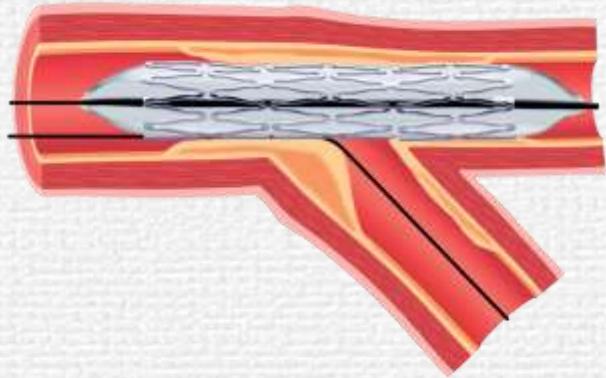


# Questions related to technique

- How often did we see loss of flow in a jailed vessel?
- How often did it prove impossible to rewire a jailed vessel?
- How often did we see the need for side vessel stenting?



## PROVISIONAL AND DUAL STENT



### JAILED SIDE VESSEL FLOW IMPAIRMENT

5% (20/400)

- Increased with  $\geq$  moderate calcification [OR 4.5,  $p=.009$ ]
- No benefit with SV preparation

### FAILURE TO REWIRE JAILED VESSEL

3.9% (17/431)

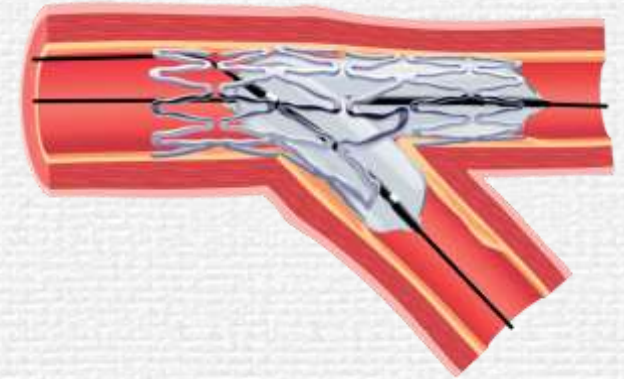
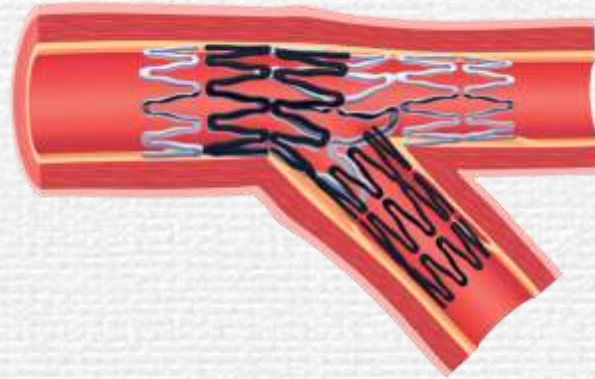
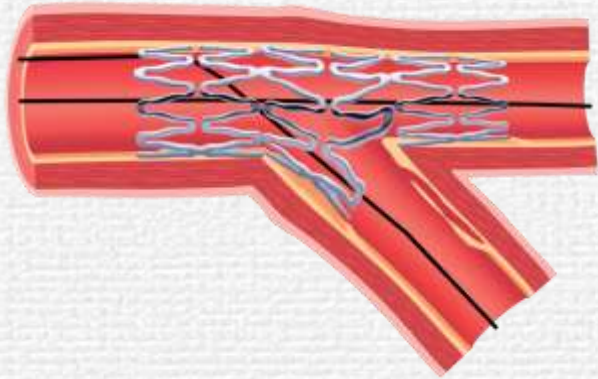
- Increased in the absence of a jailed wire [OR 6.4,  $p=.002$ ]
- No benefit with SV preparation

### PERIPROCEDURAL MYOCARDIAL INFARCTION

4.6% (20/438)

- No association with transient TIMI  $<3$  flow
- Reduced with NC balloon use for KBI [OR 0.2,  $p=.020$ ]

## PROVISIONAL ONLY



### REQUIREMENT FOR SIDE VESSEL INTERVENTION

25.9% (58/224)

- Reduced with POT [23.3% vs 41.9%,  $p=0.04$ ]

### SIDE VESSEL DISSECTION REQUIRING STENTING

44% (22/50)

- Increased after side vessel preparation [15.3% vs 4.4%,  $p=0.04$ ]
- Increased with ACS presentation [16.9% vs 6.1%, OR 2.7,  $p=0.04$ ]

### SIDE VESSEL STENOSIS REQUIRING STENTING

42% (21/50)

- Reduced with use of non-compliant balloon KBI [5.7% vs 17.9%, OR 0.3,  $p=0.01$ ]



# Conclusions

- Transient reduction of side vessel flow occurred after initial stent placement in 5% of procedures but was not associated with periprocedural myocardial infarction.
- Failure to rewire a jailed vessel during any strategy was more common when jailed wires were not used (9.5% vs. 2.5%,  $p=0.002$ ).
- In the provisional cohort, the use of the proximal optimization technique was associated with less subsequent side vessel intervention (23.3% vs. 41.9%, OR: 0.4,  $p = 0.048$ ).





# Conclusions

- Side vessel stenting was predominantly required for dissection, which occurred more often following side vessel preparation (15.3% vs. 4.4%,  $p = 0.04$ ).
- Noncompliant balloons for kissing balloon inflation was associated with reduced need for side vessel intervention in provisional cases (20.5% vs. 38.5%,  $p = 0.01$ ).
- Noncompliant balloons for kissing balloon inflation was associated with a reduced risk of periprocedural myocardial infarction across all strategies (2.9% vs. 7.7%,  $p < 0.02$ ).

