

Planned single-stent versus upfront two-stent strategy for true bifurcation distal left main disease

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The European Bifurcation Club Left Main (EBC MAIN) trial addressed the issue of provisional single stent versus upfront double stenting in 467 patients with true bifurcation distal left main disease.

So far, only one other randomised trial, DKCRUSH-V (n=482), has addressed the same research question, showing better outcomes with an upfront two-stent [strategy](#), more specifically the double-kissing crush (DK CRUSH) technique.

In terms of methodology, two aspects need to be considered for the correct interpretation of the EBC MAIN trial results. First, both LAD and CX ostia were affected by significant disease on angiography in all included patients. Second, it being a strategy trial, the EBC MAIN did not compare the implantation of one versus two stents, but it rather compared a provisional single stent strategy, which could entail extension to two stents under prespecified procedural conditions, with an upfront assignment to use a two-stent technique.

What is new?

The primary message is that no difference in terms of the studied clinical outcomes was noted between the planned single stenting and the upfront use of two-stent techniques. Of note, 22% of patients randomised to a planned single-stent strategy were ultimately treated with two stents.

The primary composite endpoint of one-year death, [myocardial](#)

[infarction](#) and target lesion revascularization occurred at the rate of 14.7% in the provisional vs. 17.7% in the upfront two-stent group (hazard ratio 0.8, 95% confidence interval 0.5—1.3). Furthermore, no significant difference was detected for any of the individual components of the primary endpoint. The rates of stent thrombosis were similar, 1.7% in the provisional arm and 1.3% in patients treated with upfront double stenting.

What will change?

Given the overall neutral trial results, it is important to understand how EBC MAIN could be perceived as practice-changing. This comes on the backdrop of the 2018 European Society of Cardiology (ESC) Guidelines on myocardial revascularization recommendation to preferably use double-kissing crush (an upfront two-stent technique) over a planned single-stent strategy (provisional) in true left main bifurcations (Class of recommendation IIb, Level of evidence B).

The described recommendation was largely based on the results of a single randomised study, the DKCRUSH-V trial. In this respect, the EBC MAIN trial, presented on May 19 at EuroPCR 2021, adds important new data that deviate from the hitherto available randomised evidence on this topic.

Importantly and as highlighted by the authors, neutral findings of the EBC MAIN may provide support for the notion that even in true left main bifurcations the initial strategy of single stenting is not penalised by worse one-year outcomes as compared with upfront two-stent techniques.

The clinical value of these findings is compounded by prior evidence from a pooled analysis of the BBC ONE and NORDIC [trials](#), which associated upfront two-stent techniques with a higher long-term

mortality risk, as compared with an initial single-stent strategy.

Provided by European Society of Cardiology

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