Four-year results of the AIDA trial: comparison of Absorb bioresorbable scaffold with Xience everolimus-eluting metallic stent in daily clinical practice

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Aims: Absorb bioresorbable scaffold (BRS) related events were noticed between 1 and 3 years – the approximate time of active scaffold bioresorption. This resulted in the recommendation for 3 year DAPT after Absorb BRS implantation. We aimed to evaluate the safety and efficacy of the Absorb BRS in comparison with Xience everolimus-eluting stent (EES) at 4 years follow-up in large unselected population. In addition, we aimed to assess the value of prolonged DAPT against scaffold thrombosis.

Methods: AIDA was an investigator-initiated, non-inferiority, multicenter, randomized, all-comers trial. Target vessel failure (a composite of cardiac death, target-vessel myocardial infarction and target-vessel revascularization) and device thrombosis at 4-year follow-up are the primary focus of this analysis. During the trial recommendation for DAPT was changed to up to 3-years post Absorb BVS implantation. Whether this adaption influenced the results after Absorb BVS will be assessed.

Results: Between August 2013 and December 2015, 1,845 patients were enrolled, of whom 924 were randomized to treatment with Absorb BRS and 921 to Xience EES. The baseline characteristics in the two study arms were well balanced. Of all patients, 18% had diabetes mellitus, more than 50% presented with ACS and the median SYNTAX score was 11. In the Absorb BRS arm, 97% of lesions were predilated and in 74% post-dilatation was performed. Four-year clinical outcomes are currently being adjudicated by an independent clinical event committee. The results will be available at EuroPCR 2020.

Conclusions: Absorb BRS is associated with higher rates of scaffold thrombosis throughout 3-year of follow-up. The performance of Absorb BRS beyond 3-years, in comparison with the Xience EES, in a large unselected population will be presented. (ClinicalTrials.gov Identifier: NCT01858077)