Implantation of everolimus-eluting bioresorbable scaffolds in a diabetic all-comers population.

Abstract: Diabetes is associated with aggressive atherosclerosis, leading to an increased risk of in-stent restenosis and stent thrombosis. Bioresorbable scaffolds (BRS) are a new technology for the treatment of coronary lesions that might be beneficial due to their dissolving character, especially in diabetic patients. This study was designed to evaluate feasibility and mid-term clinical outcome of the implantation of PLLA-based, everolimus-eluting BRS for the treatment of coronary lesions in a diabetic all-comers population. All patients of an all-comers registry with diabetes eligible for BRS implantation were included. Outcome parameters were target vessel failure (TVF), major adverse cardiac events (MACE) including target lesion revascularization (TLR), cardiac death, and myocardial infarction. Follow-up was conducted via telephone and/or office visit. A total of 120 diabetic patients were included. Of all diabetics, 35.0% had insulin-dependent diabetes, and all other patients were treated with oral antidiabetics or dietary modification. The median age was 67 (59-72) years and 26.7% were female. Patients underwent coronary angiography due to acute coronary syndrome in 50.8%. Of 127 lesions, 60.6% were B2/C lesions according to ACC/AHA classification. The 6-month rates of TVF, TLR, and MACE were 8.9, 2.7,
This evaluation confirms reasonable clinical outcome of bioresorbable vascular scaffold implantation in a high-risk diabetic population with predominately complex lesions during daily clinical practice. Nevertheless, long-term data are required for final evaluation.