Low HbA1c value after Second-generation drug-eluting stent (DES) implantation improves target lesion revascularization (TLR) rate.

Saiseikai Yokohamashi Eastern Hospital, Japan Kenji Makino

Background: The association between hemoglobin A1c (HbA1c) after coronary intervention and clinical outcomes of patients treated with Second-generation drug eluting stent (DES) is unclear. Method: From May 2007 to December 2013, 317 patients (575 lesions) on diabetes mellitus were treated with second generation DES implantation. We divided into two groups based on their postprocedural glycemic control. Postprocedural A1c value at the approximately 12-month follow-up angiography. Optimal glycemic control was defined as a postprocedural A1c value of <7.0% (O group), and suboptimal control was defined as a postprocedual A1c value of >=7.0% (S group). The primary endpoint was angiographic outcomes and MACE (death, AMI, target lesion revascularization: TLR). Results: There are no significant difference between two groups about baseline clinical and lesion characteristics. The rates of target lesion revascularization in S group were significant higher than O group. (S group: 2.8%, O group: 0.5%, P=0.027). However, no significant difference was detected in MACE(S group: 3.9%, O group: 1.77%, P=0.14). There were no episodes of stent thrombosis in either group. Conclusion: Second-generation DES implantation decrease TLR rate with proper controlling of HbA1c after procedure.