

# Factors that Predict Target Lesion Revascularization in Patients with Paclitaxel-eluting Stent Implantation

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**Abstract :** The purpose of this study was to evaluate the predictors of target lesion revascularization (TLR) after Paclitaxel-eluting stent (PES) implantation in three hundred twenty nine lesions of 250 patients with coronary artery disease. All pre- and post-procedural images were analyzed using a CMS-GFT system (MEDIS, The Netherlands). The incidence of insulin-treated diabetes mellitus was significantly higher in the TLR group than in the non-TLR group (15.9% vs. 4.17%,  $p=0.03$ ). The lesion length was longer and the reference diameter was smaller in the TLR group than in the non-TLR group ( $19.8 \pm 11.3$  mm vs.  $15.3 \pm 8.1$  mm,  $p=0.03$ ,  $2.48 \pm 0.47$  mm vs.  $2.88 \pm 0.6$  mm,  $p=0.01$ , respectively). The incidence of severe calcification was higher in the TLR group than in the non-TLR group (33.3% vs. 8.3%,  $p=0.027$ ). A multivariate analysis showed that stent length and calcification were strong predictors of TLR after PES implantation in this study; stent length was associated with a 1.3- to 14.4-fold higher relative risk of TLR, while patients with calcification were associated with a 2.0- to 26.5-fold higher risk of TLR relative to those without calcification.

**Key words :** Paclitaxel-eluting stent, Restenosis, Target lesion revascularization