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Predictors of In-Stent Restenosis

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Li et al reported in their recent article entitled "Evaluation of Preprocedural Laboratory Parameters as Predictors of Drug-Eluting Stent Restenosis in Coronary Chronic Total Occlusion Lesions" that the neutrophil-to-lymphocyte ratio, platelet-to-lymphocyte ratio, low density lipoprotein cholesterol level, and stent length were independent risk factors for the development of in-stent restenosis (ISR) after drug-eluting stent implantation in patients who underwent successful percutaneous coronary intervention (PCI) for coronary chronic total occlusion lesions.[1]

Although interventional approaches and pharmacological therapies have improved, ISR remains a major problem in the stent era. It was reported that neointimal hyperplasia was triggered by stents, and ISR could result from several mechanisms including inflammation and oxidative stress.[2-4] In our recent study, we demonstrated that CHA_2DS_2-VASc (congestive heart failure, hypertension, age $\geq$75 years, diabetes mellitus, previous stroke/transient ischemic attack, vascular disease, age 65-74 years, female gender) score could be also used as a predictor of ISR.[5] We also found a significant positive correlation between CHA_2DS_2-VASc score and C-reactive protein levels.[5] However, Li et al[1] did not calculate the CHA_2DS_2-VASc score of the study population in their study. Moreover, Kocas et al[6] suggested that statin nonadherence in patients with PCI was associated with an increased risk of ISR. However, there is also no data regarding statin and other medication usage in the Li et al[1] study.

The present study findings must be interpreted in light of several confounding factors before making a definite decision about ISR in patients who underwent PCI.

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