We read with interest the recent publication in the Journal by Tsujita et al. (1). Treatment with the atorvastatin/ezetimibe combination showed greater coronary plaque regression; statistical analysis was performed according to previous intravascular ultrasound (IVUS) studies. Scrutiny of Table 1 reveals that there was an excess (12%) of current smokers in the statin monotherapy group (p = 0.056 using the Fisher exact test). Smoking is a major risk factor for premature coronary atherosclerosis and acute coronary syndromes. Might the difference in current smokers between the 2 groups have affected the results and thus favored the group receiving combination lipid-lowering therapy? That said, careful review of studies using serial IVUS for assessment of coronary atheroma progression/regression revealed omission of consideration of current smoking as a key factor of immediate relevance (2–4).

Thus, smoking is well established as a risk factor for CAD, and stopping smoking is one of the principal measures recommended in secondary prevention of CAD; however, serial IVUS measures of coronary atheroma in secondary prevention have not to date confirmed that smoking is associated with disease progression.

The recent report of Bolorunduro et al. (5) using virtual histology IVUS showed that cigarette smoking is associated with a higher burden of necrotic core in coronary lesions. Because necrotic core burden has been consistently shown to predict the presence of vulnerable plaque, these findings could suggest that even if smoking is not associated with coronary plaque progression, cigarette smoking increases vulnerable plaque burden and thus the potential for acute clinical coronary syndromes.

Clearly, further investigation of the impact of current smoking on coronary plaque progression, assessed by serial IVUS, is warranted.

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REFERENCES

REPLY: Dual Lipid-Lowering Strategy With Ezetimibe and Atorvastatin on Coronary Plaque Regression After PCI


We read with great interest the letter by Dr. Giral and colleagues commenting on our recent paper (1). First