C-Reactive Protein Cutoff Point as a Risk Factor for Coronary Spasm

To the Editor:

Itoh et al investigated the association of coronary spasm and chronic low-grade inflammation and reported that minor elevations of serum high-sensitivity C-reactive protein (CRP) levels were significantly and independently associated with coronary spasm in patients with normal coronary angiograms. They recommended the CRP cutoff point of 2 mg/L as a risk marker for coronary spasm in patients with normal coronary angiograms. In their report, the association of CRP levels with coronary spasm was not significant when the cutoff point of 3 mg/L was used, but was significant with a cutoff point of 2 mg/L. However, this value of 2 mg/L was selected arbitrarily. They should study the optimal CRP cutoff point as a risk factor for coronary spasm using a receiver-operating characteristic (ROC) curve analysis. If they analyze the ROC curve, the optimal cutoff point may be between 0.5 mg/L and 1.2 mg/L, because, in their report, the median CRP value of the nonspasm group was 0.5 mg/L and that of the spasm group was 1.2 mg/L. We reported a CRP cutoff point of 0.65 mg/L as a component of metabolic syndrome (MS) and this value may also be an appropriate predictor for increased cardiovascular disease risk. Our study population was rather small; however, the CRP cutoff point of 0.65 mg/L was validated as an appropriate value for a component of MS by the reports of Nakanishi et al and Saijo et al. Further, Ye et al reported that the CRP median for those with 0, 1, 2, 3, 4, and 5 components of MS was 0.38, 0.44, 0.58, 0.93, 1.10, and 1.72 mg/L, respectively (p<0.0001 for trend) among 1,458 Chinese men and 1,831 Chinese women. Therefore, the CRP cutoff point of 0.65 mg/L may be appropriate as a component of MS not only for Japanese but also for Chinese. Moreover, in 27,939 apparently healthy women in the United States, Ridker et al reported that the relative risk for cardiovascular disease was significantly higher in the group with CRP levels of 0.64–1.0 mg/L than in the group with CRP levels <0.36 mg/L and Sabatine et al reported that CRP levels of 1–3 mg/L were significant predictors of adverse cardiovascular events in patients with stable coronary artery disease, even after adjustment for elements of first-rank symptoms and clinical and laboratory parameters. Therefore, a CRP cutoff point around 0.65 mg/L might be relevant as a risk factor for cardiovascular disease, even among Westerners.

References

4. Oda E. C-reactive protein cutoff point of 0.65 mg/L may be appropriate not only as a component of metabolic syndrome but also as a risk predictor of cardiovascular disease. Circ J 2007; 71: 1501(Letter).

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