

LETTER TO THE EDITOR

WILEY

To the editor

To the editor,

We would like to thank you for the opportunity to respond to the issues raised by Spicuzza et al. in their letter. We would also like to thank them for their interest in our paper and for their interesting comments.

The objective of our study was to evaluate if changes in endothelial dysfunction-related biomarkers concentrations could be observed on quitting smoking. To that end, we assessed several biomarkers reflecting different processes involved in endothelial dysfunction – endothelial activation, inflammation, oxidative stress and lipid metabolism. The cardiovascular risk is complex and multifactorial and should be approached as a whole¹ rather than considering one biomarker at a time in relation to its normal/pathological ranges. Interestingly, we observed changes in all studied processes, and all changes were consistent with an improvement on quitting smoking. Also, studies reporting biomarkers concentrations in smokers compared to non-smokers agree that cigarette smoking influences endothelial function by acting on inflammation, oxidative stress and lipid profile without being associated with only pathological values for all these biomarkers in smokers.^{2,3} Therefore, we could rationally not expect to show concentrations changes switching from pathological to normal ranges (or vice versa) on quitting. Moreover, even if small and remaining in normal ranges, some changes in biomarkers concentrations can be beneficial. For example, the lower the LDL level, the better for preventing cardiovascular events.⁴ Consequently, our main contribution was to show the biomarkers concentrations evolution in smokers who quit, and we have demonstrated that this evolution was in the direction of an overall improvement. All results obtained for quitters were compared with those of non-smokers, as described in our manuscript. We have reported biological changes, and a clinical study would be of interest to potentially relate them with a clinical improvement. However, our findings are already consistent with the reported beneficial health changes associated with smoking cessation.^{5,6}

Our manuscript does not suggest performing individual invasive measurements to motivate patients enrolled in smoking cessation programs. Our observations contribute to the understanding of the physiopathology

underlying cardiovascular diseases by highlighting the processes affected by smoking and the potential reversibility of these alterations. These findings could be used by clinicians to provide new arguments for smoking cessation to their patients.

CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to declare.

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