Eur J Nucl Med Mol Imaging (2013) 40:142
DOI 10.1007/s00259-012-2252-3

LETTER TO THE EDITOR

Effects of type 2 diabetes mellitus on coronary microvascular function and myocardial perfusion in patients without obstructive coronary artery disease: reply to Presotto

Caterina Marciano

Published online: 3 November 2012

Dear Sir,

We fully agree with the comments in the letter regarding the statistical significance of the association between fasting glycaemia and coronary flow reserve reported in our article [1] in the whole group of diabetic and nondiabetic patients. Indeed, when the four outlier patients were excluded the association was no longer statistically significant.

However, there are two main considerations that we would like to point out regarding the overall relevance of this association in our study. The first is methodological, and concerns the exclusion of outlier values when assessing a relationship, which in our opinion is always arbitrary and can be object of criticism. This is why we included these patients in the statistics. The second is more relevant and concerns the pathophysiological meaning of the association we reported. The *r* value was 0.34, which is very consistent with the value of 0.42 reported previously by Di Carli et al. [2]. Thus, the pathophysiological relevance is quite modest, as we acknowledged in the Discussion, where we state that the relationship was lost in the subgroup of diabetic patients, and that the weakness of the association indicates the presence of additional pathogenetic mechanisms that explain the abnormalities of microvascular function in these patients.

Therefore, in agreement with the comments reported, we believe that the data presented in the article do not overemphasize the meaning of the relationship, despite its statistical significance.

References

1. Marciano C, Galderisi M, Gargiulo P, Acampa W, D'Amore C, Esposito R, et al. Effects of type 2 diabetes mellitus on coronary microvascular function and myocardial perfusion in patients without obstructive coronary artery disease. Eur J Nucl Med Mol Imaging. 2012;39:1199–206. doi:10.1007/s00259-012-2117-9.
2. Di Carli MF, Janisse J, Grunberger G, Ager J. Role of chronic hyperglycemia in the pathogenesis of coronary microvascular dysfunction in diabetes. J Am Coll Cardiol. 2003;41:1387–93.

This reply refers to the comment available at doi 10.1007/s00259-012-2246-1.

C. Marciano (✉)
Department of Clinical Medicine, Cardiovascular and Immunological Sciences, University Federico II, Naples, Italy
e-mail: caterinamarciano@hotmail.it