



## Response to JNC-22-024-LE

We very much appreciate the comments to our article “New criteria for the diagnosis of infectious endocarditis using 18F-FDG PET/CT imaging”<sup>1</sup>. The main aim of our study was to investigate the potential role of a 4-Point visual score and a semiquantitative criterion such as spleen and/or bone marrow hypermetabolism (HSBM) in predicting infective endocarditis (IE). As Aghayev Ayaz observed by all 108 patients we excluded 9 patients for the evaluation of HSBM due to the presence of concomitant inflammatory diseases. This choice is due to the fact that in these 9 cases the evidence of HSBM was clearly related to the signs of other inflammatory diseases, such as spondylodiscitis, vasculitis, sarcoidosis, and vascular graft infection. In Table 2 for an error, the sensitivity, specificity, negative predictive value, positive predictive value, and accuracy of the Like-Deauville score criterion for native valve infective endocarditis (NVE) have been reported under the HSBM column; so we write an erratum. The values of sensitivity, specificity, negative predictive value, positive predictive value, and accuracy of HSBM we discovered were 91% (95% CI 80-93%), 83% (95% CI 71-92%), 85% (95% CI 75-91%), 90% (95% CI 80-94%), and 87% (95% CI 79-93%), respectively. Considering the high-persistent mortality<sup>2</sup>, prolonged hospitalization and impaired quality of life of this disease<sup>3</sup> we have shown that HSBM in addition to direct signs of IE could be useful for diagnosis of IE improving the accuracy of 18F-FDG PET/CT.

In agreement with the data available in literature we found a high number of false-negative findings in patients with NVE<sup>4</sup>; this considerable discordance of performances between PVE (prosthetic valve infective endocarditis) and NVE is due to the evidence that the inflammatory response of IE usually consists of a pool of polymorph nuclear cells, lymphocytes, and macrophages, which may have an increased metabolic activity, and this inflammatory response is highly expressed in the prosthetic valvar plane. Conversely, in NVE, the presence of polymorph nuclear cells is less significant,

while a fibrotic reaction is prominent. Moreover, as the reader declared in his comment the vegetation in NVE is often avascular and usually small, affecting the detection rate. Therefore, in NVE the vegetations are localized more often on the flaps and not on the anulus<sup>5</sup>; so the artifact movements derived by heart contraction could affect the PET/CT images and to reduce this bias we proposed an ECG-gated acquisition.

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### References

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