

# Motivational interview and imaging of subclinical atherosclerosis for cardiovascular disease prevention: a winning combination?

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**This commentary refers to ‘Effects of a comprehensive lifestyle intervention on cardiovascular health: the TANSNIP-PESA trial’, by I. Garcia-Lunar et al., <https://doi.org/10.1093/eurheartj/ehac378> and the discussion piece ‘The TANSNIP-PESA trial is not the end of the story’, by U. Näslund et al., <https://doi.org/10.1093/eurheartj/ehad135>.**

We read with great interest the comments of Dr. Näslund and colleagues on our recently published TANSNIP-PESA randomized controlled trial (RCT),<sup>1</sup> in which we showed that a worksite intervention based on motivational interview was able to improve lifestyle behavior and cardiovascular (CV) health in low-risk participants from the PESA-CNIC-Santander ongoing prospective cohort study. Besides the points they raised, we would like to add here several critical differences between TANSNIP-PESA and the VIPVIZA pragmatic RCT, which tested the effect of atherosclerosis visualization on CV risk.<sup>2</sup> First, in VIPVIZA, all participants underwent a carotid ultrasound examination at enrollment, but only those subjects who were later allocated to the intervention arm (and their primary-care physicians) were informed of the results. VIPVIZA found a significant reduction in CV risk in favor of the intervention at the first-year follow-up which was mainly driven by an improvement in lipid levels, with no significant effects on other components of the risk scores. A secondary analysis showed a very significant increase in statin use in intervention participants after atherosclerosis visualization, compared with the control group.<sup>3</sup> Together, these results suggest that the main effect of atherosclerosis awareness occurred through increased adherence to pharmacological therapy and earlier de-novo prescription of statins. Given that pharmacological non-adherence is one of the most challenging risk factors in CV prevention,<sup>4</sup> this finding is of extreme importance.

Conversely, in TANSNIP-PESA, we could not study the effect of atherosclerosis visualization itself, given that all participants were already aware of their subclinical atherosclerotic status before entering the RCT (as part of the PESA protocol).<sup>1</sup> This awareness of the vascular disease status could have diluted the intervention effect size. As commented before, TANSNIP-PESA was also positive for the primary outcome at year 1, although the intervention effectiveness attenuated

at year 3. The most important difference between both RCTs is that the main effect of the motivational interview program in TANSNIP-PESA was a change toward a healthier lifestyle (improved physical activity and diet, and decreased sedentary time), followed by CV risk factors reduction (blood pressure and cholesterol), but there was no effect on initiation of lipid-lowering therapies in this low-risk population (the proportion of participants under lipid-lowering medication at the first-year follow-up was similar between groups).

What both RCTs do have in common is that they address relevant unmet needs in CV prevention (therapeutic adherence and healthier lifestyle shift) with positive results. We are firmly convinced, as Dr. Näslund and colleagues, that the TANSNIP-PESA trial is not the end of the story for motivational interviews in CV prevention but provides valuable information for the design of future trials, in particular the need for subsequent reinterventions to achieve sustainability. In our view, both interventions (atherosclerosis visualization and motivational interviews) should be further tested as complementary approaches for greater CV health benefits. From an imaging perspective, multi-territorial vascular scanning, and the use of plaque measurements (besides intima-media thickness) should be part of the pictorial information provided to individuals in these future trials.<sup>5</sup>

## Author contributions

Ines Garcia-Lunar, MD, PhD (Writing—original draft: Lead), Borja Ibanez, MD, PhD (Writing—review & editing: Equal), and Valentin Fuster, MD PhD (Writing—review & editing: Equal).

## Conflict of interest

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