

concentrations of these proteins favor the inflammatory process and promote insulin resistance.⁵

We suggest that Grau et al.¹ include measurement of abdominal circumference as an indicator of abdominal obesity, take into account menopausal status in women, and determine low-density lipoprotein cholesterol and triglyceride levels. As demonstrated in a number of studies,⁶ these variables are easy to determine noninvasively and are useful. Despite the questions raised in the present article, we consider the work carried out by these authors to be excellent.

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Carotid Intima-media Thickness in the Spanish Population: Reference Ranges and Association With Cardiovascular Risk Factors. Response to Related Letters

Grosor íntima-media carotídeo en población española: valores de referencia y asociación con factores de riesgo cardiovascular. Respuesta a cartas relacionadas

To the Editor,

We appreciate the comments of Cordero et al. and of Miguel-Soca et al. regarding our article “Carotid Intima-media Thickness in the Spanish Population: Reference Ranges and Association With Cardiovascular Risk Factors”.¹ Although we share most of their views, as can be understood from our article, we would like to provide certain data that we have been asked to present and which complement some of the opinions expressed in the “Letters to the Editor”.

Measurement of carotid intima-media thickness (IMT) has been increasingly employed in the last 2 decades. This measure is easily reproducible and an increase in thickness is associated with the prevalence of cardiovascular risk factors. Moreover, carotid IMT has been shown to have a constant and gradual association with the risk of cardiovascular events. The American Heart Association has pointed out that carotid IMT measurement improves the prediction of prognosis in individuals with intermediate risk classified according to the Framingham equation.^{2,3} As Cordero et al. state, the utility of carotid IMT measurement in the context of atherosclerotic disease in general remains to be clarified. To respond to this question and to determine the independent predictive value of carotid IMT and its utility in the reclassification of individuals at intermediate risk, we are presently following a population-based cohort whose baseline carotid IMT values were used in our article published in the *Revista Española de Cardiología*.¹

In response to the request of Miguel-Soca et al., we wish to point out that, although we collected data on low-density lipoprotein cholesterol, triglycerides, and waist circumference, this information was not included in the original article for reasons of space. To respond to the Letter by Miguel-Soca et al. we have adjusted multivariate models to determine the association of the mean IMT of the common carotid artery and of all the segments of the carotid artery with these 3 risk factors. These models were adjusted in a way similar to that described in the original article (adjustment

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variables: age, smoking, diabetes mellitus, pulse pressure, high-density lipoprotein cholesterol, low-density lipoprotein cholesterol, triglycerides, and abdominal circumference), although, in this case, total cholesterol and body mass index were not considered due to problems with collinearity.

Abdominal circumference is the only risk factor of the 3 considered that was found to have a significant association with the mean IMT of the common carotid artery in both women and men (coefficient=0.01 [$P=.015$] and coefficient=0.01 [$P=.017$], respectively). On the other hand, the increase of 10 mg/dL in LDL-C was significantly associated with the mean IMT in the 3 carotid artery segments in women and men (coefficient=0.03 [$P=.005$] and coefficient=0.03 [$P=.006$], respectively). Triglyceride levels showed no significant association with any of the carotid IMT measurements considered.

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