➔ RISK FACTORS

NEGATIVE RISK MARKERS FOR CVD

Although much attention has been focused on identifying individuals who are at high risk of cardiovascular disease (CVD), the value of recognizing individuals at very low risk of cardiovascular events is uncertain. Blaha and colleagues now report that negative results of atherosclerosis imaging tests lead to the greatest downward risk classification. These findings are relevant for those identified as being less likely to receive benefit from lifelong drug therapy.

Overall, 6,814 patients from the Multi-Ethnic Study of Atherosclerosis were assessed for negative markers of cardiovascular risk, including CAC = 0, ankle brachial index >0.9, and no family history of coronary heart disease (CHD). The relative value of these negative risk factors in identifying low absolute risk was calculated using risk-adjusted diagnostic likelihood ratios (DLRs). Patients were followed up for a mean of 10.3 ± 2.3 years.

Based on the mean multivariable-adjusted DLR for the whole population, CAC = 0 was the strongest negative risk marker, as it resulted in the greatest downward shift in estimated CVD risk. Among the negative clinical features, the absence of any family history of CHD was the strongest, suggesting that its absence can guide detection of lower CVD risk.

According to the study investigators, “the potential role of negative results of a number of risk markers commonly used in clinical practice has not yet been studied in a single, large, population-based study”. They conclude that “although this specific use of prognostic tests for down-grading risk estimates ... was not discussed in the latest ACC/AHA risk assessment guidelines ... the clinical and public health implications of these findings could be substantial”.

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ORIGINAL ARTICLE Blaha, M. J. *et al.* Role of coronary artery calcium score of zero and other negative risk markers for cardiovascular disease: the Multi-Ethnic Study of Atherosclerosis (MESA). *Circulation* doi:10.1161/CIRCULATIONAHA.115.018524