Int Angiol. 2012 Jun;31(3):219-26.

Prediction of vascular events in subjects with subclinical atherosclerosis and the metabolic syndrome: the role of markers of inflammation.

Corrado E, Rizzo M, Aluigi L, Patti AM, Coppola G, Muratori I, Caccamo G, Balasus F, Novo S.

Department of Internal Medicine and Medical Specialties, University of Palermo, Palermo, Italy.

Abstract

AIM:

The presence of the metabolic syndrome (MS) increases cardiovascular morbidity and mortality and we aimed to assess the outcome in subjects with the MS and subclinical atherosclerosis.

METHODS:

We followed-up for five years 339 Mediterranean subjects with asymptomatic carotid intima-media thickness >0.9 mm (men: 60%; age: 66±5 years), of whom 130 had the MS (men: 59%; age: 66±5 years), evaluating at baseline traditional cardiovascular risk factors (including male gender, older age, obesity, hypertension, diabetes, smoking, family history of cardiovascular diseases, dyslipidemia) and plasma levels of C-reactive protein and fibrinogen.

RESULTS:

Cardio- and cerebrovascular events were registered in the 29% of subjects with the MS and in the 20% of those without it and the presence of more criteria for the diagnosis of the MS was significantly associated with vascular morbidity and mortality. By multivariate analysis, including all baseline variables, independent predictive roles for the events were found for elevated markers of inflammation (OR 3.8), elevated fasting glucose (OR 2.1) and elevated triglycerides (OR 1.4).

CONCLUSION:

These findings confirm a worst vascular outcome in subjects with more criteria for the diagnosis of the MS and further suggest the need of future research to understand the combined role of inflammation and the MS in the progression from subclinical to clinical atherosclerosis.