

Prevalence of metabolic syndrome: a comparative analysis in an unselected sample of mediterranean subjects.

Corrado E, Rizzo M, Caccamo G, Coppola G, Muratori I, Tantillo R, Dell'oglio S, Nugara C, Macaione F, Novo G, Alcamo R, Mignano A, Ferrara F, Novo S.

Division of Cardiology, Department of Internal Medicine, Cardiovascular and Nephro-Urological Diseases, University Hospital "Paolo Giaccone" of the University of Palermo, Italy.

Abstract

AIM:

The metabolic syndrome (MS) is associated with increased cardiovascular and cerebrovascular risk. This study aimed to compare the difference of the three established diagnostic criteria of MS, developed by Adult Treatment Panel III (ATP III), American Heart Association (AHA) and National Heart Lung and Blood Institute (NHLBI), and International Diabetes Federation (IDF), with regard to the prevalence of the syndrome and the ability to correctly identify individuals with cardiovascular or cerebrovascular disease or subclinical atherosclerosis.

METHODS:

We studied 947 consecutive patients underwent clinical evaluation between the 1997-2002. The project design included a medical assessment, biochemical analyses and the ecocolor Doppler examination of carotid arteries.

RESULTS:

The MS prevalence was 37% in ATP III subjects, 36% in AHA/NHLBI subjects and 43% in IDF subjects. Excluding patients with diabetes (N.=259), the MS prevalence ranged from 32% (ATP III and AHA/NHLBI subjects) and 40% (IDF subjects). By most criteria, MS-positive subjects had significant incidence of carotid atherosclerosis ($P<0.05$) and cardiovascular events ($P<0.05$) than MS-negative subjects, but not cerebrovascular events. Finally, patients with MS had higher serum levels of fibrinogen ($P<0.04$).

CONCLUSION:

Subclinical atherosclerosis and cardiovascular events were increased in presence of the MS, irrespective of the several definitions.