A COMPARISON OF THE NEW INTERNATIONAL DIABETES FEDERATION DEFINITION OF METABOLIC SYNDROME TO WHO AND NCEP DEFINITIONS IN CHINESE, EUROPEAN AND SOUTH ASIAN ORIGIN ADULTS

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INTRODUCTION

The concept of the clustering of CVD risk factors and of metabolic syndrome can be traced to work that is decades old. This includes Vague’s description of the metabolic characteristics of android (upper body) obesity, first published in English in the 1950s, and the description by Camus in the 1960s of a “trisyndrome metabolique,” consisting of the association of gout, hyperlipidemia and diabetes. The definition by Reaven of syndrome X provided a focus that enabled these, and other observations to be brought together under the umbrella of a metabolic or insulin resistance syndrome.

Only relatively recently, however, have international or national bodies proposed working definitions of metabolic syndrome. The first was the World Health Organization (WHO) in 1999. Two years later the third Adult Treatment Panel of the United States National Cholesterol Education Program (NCEP) proposed a definition as part of its guidance on the identification and management of dyslipidemia, a definition that was recently modified to use a lower fasting glucose cut point.

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RESULTS: IDF-defined MS was highly prevalent in all groups, ranging from 12.3% (95% CIs 7.4–17.2) in Chinese men to 45.5% (39.5–51.5) in South Asian men. In women, of all ethnic groups, more than 80% of those with WHO- or NCEP-defined MS also had IDF-defined MS. In men, however, agreement was less good. For example, in each ethnic group, more than a third of those with WHO-defined MS did not have IDF-defined MS. Within each ethnic group, the biological characteristics of those with MS by any definition were largely the same. However, differences existed between ethnic groups. For example, in those with IDF-defined MS, both South Asian men and women had significantly (P<.05) higher insulin resistance and significantly lower systolic and diastolic blood pressure than Europeans or Chinese.

ENDNOTE

METHODS

Participants and Data Collection - The Newcastle Heart Project


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