Clinical implications of the metabolic syndrome

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The metabolic syndrome has become one of the most important topics for this decade because of the marked increase in cardiovascular risk that is associated with a clustering of risk factors. It is unclear if this truly is a syndrome. But, what is very clear is its clinical implications.

The risk factors associated with this syndrome are primarily well known—hypertension, dyslipidemia (high triglycerides and lower HDL), elevated fasting blood glucose and central obesity. Currently, the American Heart Association has classified patients with this syndrome if they have three out of five abnormal findings.1

In a recent Framingham Offspring Study2—an analysis tracking more than 3,000 persons over more than a dozen years—prevalence of the metabolic syndrome as defined by Adult Treatment Panel III criteria rose more than 70%. This is of great concern when one considers the associations with type 2 diabetes, with more than 80% having metabolic syndrome.

Insulin resistance is strongly associated with most of the risk factors linked with the metabolic syndrome.

Subsequently, a new analysis of the Latin American countries participating in the INTERHEART3 study shows that, in contrast to other areas of the world, abdominal obesity was the most important population-attributable risk (PAR) factor for acute MI.

Inside this issue, Shailesh Nandish MD, Jamison Wyatt MD, Nandish Thukral MD, and I look at the prevalence and progression of diabetes. The authors suggest that diagnosing individuals with impaired fasting glucose (IFG) and impaired glucose tolerance (IGT) can result in aggressive lifestyle and cardiovascular disease (CVD) risk factor modification, which in turn may result in better outcomes.

Looking at treating risk components of the metabolic syndrome, Patricia Hiserote, DO, and Michael B. Clearfield, DO, conclude that further research is needed to define what combination of risk factors in the metabolic syndrome results in a greater or lesser CV risk and whether the addition of inflammatory and/or prothrombotic markers will refine the syndrome definition. Also in this issue, Craig W. Spellman, PhD, DO, and Ramachandra Rahul V. Chemitiganti, MD, present the latest key information related to this important topic.

Finally, Richard Snow DO, MPH, looks at metabolic syndrome and the controversy and value of using a medical home model in chronic disease prevention.

References

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