METABOLIC SYNDROME - HYPERTENSION

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18th. March, 2008
Definition

• “Metabolic Syndrome" refers to a clustering of specific cardiovascular disease (CVD) risk factors whose underlying pathophysiology is thought to be related to insulin resistance.

• It is the simultaneous presence of obesity, type 2 diabetes, insulin resistance, hypertension, Atherogenic dyslipidemia, a prothrombotic state, and proinflammatory state
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Relationship

• Hypertension is rapidly increasing globally and appears to do so together with obesity and diabetes, although there is a smaller component associated with lean body weight and salt consumption.

• High blood pressure is often associated with various metabolic abnormalities, including abdominal obesity, dyslipidemia, elevated plasma glucose, and insulin resistance, which are the main features of the metabolic syndrome.
“Anyone who has attended recent hypertension meetings in the United States or Europe will have come away with the distinct impression that the metabolic syndrome has become very much a focus of interest in the discipline of hypertension.”
Evidence

• Evidence indicates that the metabolic syndrome is associated with an increased prevalence of preclinical vascular, cardiac, and renal changes, such as left ventricular hypertrophy, microalbuminuria, impaired aortic elasticity, and early carotid medial intimal atherosclerosis,
Hypertension and obesity are the features of Metabolic Syndrome that are most predictive of impairment in large and small artery elasticity in apparently healthy middle-aged and older adults.
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Pharmacotherapy

• If the metabolic syndrome is regarded as an endocrine disease: is there an effective pharmacotherapeutic strategy optimally targeting the pathogenesis?

• At present, no unifying pathogenetic mechanism can explain the metabolic syndrome and there is no unique treatment for it.
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? Unified composite treatment

• There is a continued and growing belief that a unifying endocrine cause will be found and this will lead to an integrated approach and a unified therapeutic tool that will treat all the components of the metabolic syndrome, including the hypertension

A SINGLE MAGIC BULLET
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At present:

• Each component is treated separately leading to multiple pharmacotherapy, including multiple drugs for hypertension, treatment of dyslipidemia, obesity, diabetes, hypercoagulable and inflammatory states,
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Treatment For Hypertension

• The treatment should consider the other multiple factors at hand.
• The lean hypertensive with salt overload or
• The hypertensive with some features of metabolic syndrome
Which Way Forward

• It is currently controversial which component of the metabolic syndrome carries what weight.

• There is even considerably more debate whether the risk for ASCVD is greater in patients diagnosed with Met S than that by the individual risk factors.

Therapeutic Advances in Cardiovascular Disease, Vol. 1, No. 1, 7-26 (2007)
Thank You