Metabolic Syndrome

Introduction

The metabolic syndrome is a clustering of factors that increasing CVD risk including hyperinsulinemia, obesity, dyslipidemia (small dense low-density lipoprotein, hypertriglyceridemia, and decreased high-density lipoprotein cholesterol), and hypertension. The pathogenesis of the syndrome has multiple origins. However, obesity and sedentary lifestyle coupled with diet and still largely unknown genetic factors clearly interact to produce the syndrome ***(Lionel, 2007).***

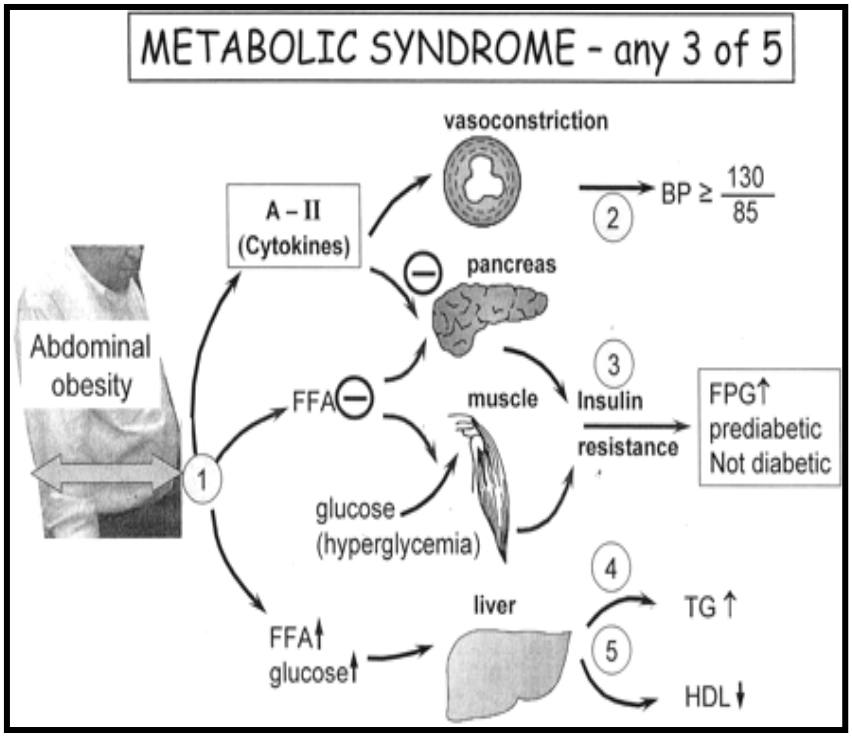

Fig. (1): Metabolic syndrome components. A-II: angiotensin-II; FFA: free fatty acids; BP: blood pressure; FPG: fasting plasma glucose; TG: triglycerides; and HDL: high-density lipoproteins ***(Lionel, 2007).***

There is currently substantial confusion between the conceptual definition of the metabolic syndrome and the clinical screening parameters and cut-off values proposed by various organizations (NCEP-ATP III, IDF, WHO, etc) to identify individuals with the metabolic syndrome. Although it is clear that in vivo insulin resistance is a key abnormality associated with an atherogenic, prothrombotic, and