New Insights into Understanding Cardiometabolic Risk

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ardiometabolic risk is defined by a constellation of medical conditions that commonly occur together and, as a group, greatly increase the risk of developing cardiovascular disease and diabetes. These risk factors involve multiple pathways and physiologic systems and point to a need for a comprehensive assessment and management approach. This collection of risk factors is increasing at an unparalleled rate, largely because of the increasing prevalence of overweight and obese patients. Abdominal obesity is a key component of cardiometabolic risk, increasing the incidence of insulin resistance, vascular inflammation, dyslipidemia, and hypertension. Adipose tissue, now recognized as an endocrine organ, and its hormonal products appear to play a significant role in the regulation of fat and glucose metabolism throughout the body. These mechanisms are clearly involved in the development of cardiovascular and metabolic disease.

Current treatment approaches to cardiometabolic risk factors generally involve a fragmented approach to care, advocating management of only the clinically evident conditions. Large treatment gaps exist in clinical practice for these individual modifiable risk factors and in aggregate. As cardiometabolic risk factors tend to cluster, patients often have additional subclinical conditions that would be discovered through comprehensive evaluation for the entire constellation of risk factors, thereby enabling clinicians to recommend optimal treatment to prevent cardiovascular and metabolic morbidities.

The goals of the supplement are to describe cardiometabolic risk and the progression of cardiometabolic risk to cardiovascular disease. Effective strategies for identification of appropriate patients for cardiometabolic risk management will be presented. The important unmet needs in controlling metabolic disease will be reviewed and novel therapies for cardiometabolic risk reduction and implications for clinical practice will be discussed. In addition, a practical approach to reducing cardiovascular risk factors will be covered. Strategies that may be useful in bridging the gap between evidence-based guidelines and clinical practice will be provided. It is our hope that this information will prove useful in improving the quality of patient care, and through improved risk factor control and enhanced use of evidence-based therapies ultimately reduce death and disability due to cardiovascular disease and diabetes.