



Metabolic Biomarkers and Management of the Obesity

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BACKGROUND: Variety of metabolic responses occurs following obesity such as insulin resistance, hypertension diabetes, and dyslipidemia. Recently, it has been suggested that adipose tissue produces and secretes various bioactive substances. Hence, identifying these biomarkers is beneficial for better management of obesity and in turn prevention of subsequent disorders. The current paper highlights new advancements in understanding specific impact of such biomarkers which could be secondary target for the obesity management. We have searched relevant scientific data sources such as PubMed/Medline, Scopus, Science Direct and Elsevier for keywords 'obesity', and 'adipocytokine', and 'adiponectin.'

RESULTS: According to the review conducted, levels of leptin and adiponectin are correlated with the changes in body weight in an opposite manner. Besides, this hold true for majority of metabolic consequences of obesity such as dyslipidemia, hypertension and impaired glucose tolerance. It is promising that adiponectin and a few interrelated adipocytokines may impede development of such diseases.

CONCLUSIONS: It appears that some of the adipocytokines may become a target for secondary prevention of obesity-related metabolic disorders (ORMD). In addition, measurement of plasma levels of these biomarkers may be useful for both screening and management of ORMD. Further, looking for any unfavorable 'biomarker profile' may elucidate underling mechanisms involved in pathogenesis of both obesity ORMD and putting them at highest risk