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LETTER TO THE EDITOR

Are leptin levels a cause or an indicator of cardiovascular risk?



Serão os níveis de leptina causa ou indicador de risco cardiovascular?

Dear Editor,

We read the article "Relationship between leptin and body mass and metabolic syndrome in an adult population" by Maria do Carmo Martins et al. with interest.¹ The authors concluded that elevated serum leptin, particularly in obese individuals, should be taken as a warning sign of energy imbalance, poor diet, hyperinsulinemia, insulin resistance, or changes in other metabolic risk factors that are strongly associated with cardiovascular disease and type 2 diabetes.¹ We thank the authors for their contribution of a well designed and documented study. We believe that these findings will enlighten further studies about leptin levels and their role in cardiovascular disease.

Cardiovascular disease constitutes a major public health problem² and investigational studies try to decrease its risks, morbidity and mortality. Any effort in this area is important in terms of many lives. The adipocyte tissue-derived hormone leptin plays an important role in the regulation of food intake and energy expenditure and recent studies have suggested that it is also involved in the pathogenesis of obesity-associated atherosclerosis and cardiovascular disease.³

As obese patients have higher body mass index and a larger adipocyte tissue mass, they are expected to have higher leptin levels. A correlation between body mass index and leptin levels should therefore not be surprising. However, we do not know whether these higher leptin levels are only an indicator or a cause of increased cardiovascular risk. Further studies might be needed in larger patient populations to clarify this question.

In addition, some previous studies suggest that smoking may influence leptin levels.^{4,5} We think that it would be better if the authors gave data on the smoking habits of their subjects, as smoking may affect cardiovascular risk and leptin levels.

Conflicts of interest

The authors have no conflicts of interest to declare.

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