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"Obesity Paradox" or a Better Nutritional Status?

To the Editor:

We read with great interest the recent article by Uretsky et al[1] about obesity's impact on survival in patients with cardiovascular disease. However, some aspects of the study are worthy of comment.

First, the study has serious limitations, such as the short-term follow-up and the younger age of obese patients compared with normal-weight patients. We suggest that the consequences of obesity on mortality could be delayed and not observed in short-term studies. When long-term outcome is evaluated, it should take into account all classical risk factors related to obesity. Eilat-Adar et al[2] reported a purposeful weight reduction in obese patients with cardiovascular disease, with a lower long-term incidence of cardiovascular events, despite the "obesity paradox."

Second, the authors discussed the cardioprotective role of soluble TNFα "antagonist" receptors produced by adipose tissue.[3] However, if adipose tissue releases these inhibitors, it also produces pro-inflammatory cytokines and inflammatory mediators, as recently observed by our group.[4] In addition, intentional weight loss reduced the production of pro-inflammatory cytokines by adipose tissue and increased the expression of anti-inflammatory cytokines (ie, IL-10).[5]

Third, body mass index (BMI) is not a direct measure of body composition and does not reflect the body muscle mass content, reduced in patients with chronic diseases.[6] Subjects with a well-represented muscle mass show a lower cardiovascular mortality.[7]

In conclusion, we suggest that an association between higher BMI and better survival in patients with cardiovascular disease should be re-evaluated in concert with nutritional status assessment. Higher BMI may confer a survival advantage if muscle mass is well represented. We recommend easy and noninvasive body composition methods (such as bioelectrical impedance analysis) to more accurately evaluate the relationship between BMI and mortality.

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