

BODY WEIGHT AND MORTALITY IN COPD: FOCUS ON THE OBESITY PARADOX

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The positive association between overweight, obesity, and cardiovascular and all-cause mortality is well established, even though this relation is typically U shaped with an increased risk also in low-weight subjects. However, being overweight or obese has been associated with a better prognosis in subjects suffering from chronic diseases, id est the "obesity paradox". In both community-dwelling and hospitalized patients with COPD, several studies have reported a significant protective effect of obesity on all-cause mortality, indicating that also in obstructive pulmonary diseases an obesity paradox may be present. Interestingly, the "paradox" is more evident for subjects with severe bronchial obstruction (i.e. a lower FEV1), while in mild-moderate conditions the weight-related mortality shows a behavior similar to that observed in the general population. Several factors may confound the relation between COPD, obesity and mortality. The lower FEV1 found in obese people may be linked to a restrictive defect rather than to an obstructive one. Due to the modified chest wall mechanical properties related to increased fat mass-obese COPD patients may present, respect to their lean counterpart, a lower lung hyperinflation which is associated to higher mortality. The traditional classification of COPD attributes to obese "blue bloaters" a low grade emphysema in opposition to lean "pink puffers"; the fact that emphysema extent is related to mortality may bias the relationship between weight and survival. It is also to underline that the majority of the studies consider BMI rather than body composition (a better predictor of mortality) when studying the intriguing relation between weight, COPD and mortality. Reverse bias has also to be taken into account, hypothesizing that an unintentional weight loss may be the deleterious factor related to mortality, rather than considering obesity a protective one.

Biography

Francesco Spelta is a PhD student at the University of Verona, Italy. After attending the School of Medicine (at the University of Ferrara, Italy), he enrolled in the Internal Medicine Residency at the University of Verona and, once finished it, he joined the PhD programme in Biomedical, Clinical and Experimental Sciences at the same university. During the Residency, he spent more than one year at Washington University in St. Louis, USA, working with Dr. Luigi Fontana's group on clinical trials about the role of calorie restriction and intermittent fasting on longevity and health. His main interests in research are related to nutrition and different conditions, with particular regards to cardio-pulmonary diseases and healthy aging.

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