Reviewer’s report

Title: Obesity survival paradox in pneumonia: a dose-response meta-analysis of prospective cohort studies

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Reviewer: Carl Lavie

Reviewer’s report:

This is a nice study and well-written meta-analysis on an important topic. The authors show that overweight/obese develop more pneumonia, but once pneumonia is present, overweight and obese have a lower mortality. There are many obesity paradoxes (Lavie CJ Progress in Cardiovascular Disease 2013, published on-line November), and this situation with pneumonia (more disease but lower mortality) is quite similar to the situation seen in coronary heart disease (De Schutter A et al Progress in Cardiovascular Disease published on-line October 2013) and Heart Failure (Lavie CJ et al JACC/HF 2013;1:93-102) which could be referenced. Also, it is unclear how the authors could use Leptin as both a mechanism for more pneumonia but lower mortality? – this needs to be better explained or deleted. Also, as with many diseases, (cancer, HIV, rheumatoid arthritis, etc), obesity may allow for greater metabolic reserve to fight a severe illness – couldn’t this be the same with pneumonia?

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

None