Reviewer's report

Title: Plasma leptin and insulin-like growth factor I levels during acute exacerbations of Chronic Obstructive Pulmonary Disease

Version: 3 Date: 17 December 2008

Reviewer: Martijn A. Spruit

Reviewer's report:

1) Previously, I have asked how co-morbidities were assessed. The authors answered 'We included in our study COPD patients with no major comorbidities, especially those that could possibly affect leptin and IGF-I levels or those associated with some degree of systemic inflammation, possibly cofounding cytokine levels. Accordingly, patients with diabetes mellitus, congestive heart failure, lung cancer, collagen vascular diseases and disturbances in thyroid function (known to influence leptin levels) were excluded from our study group.' But were comorbidities like diabetes and CHF tested? Rutten et al showed a prevalence of CHF in about 20% of the COPD patients. This should be reported in the revised version of the manuscript.

2) The fact that informed consent was obtained not at baseline, but a few days later should be reported in the manuscript.

3) Was there a difference in various systemic outcomes between patients with and without oxygen therapy?

4) The author wrote: All patients received the first steroid dose intravenously inside the hospital and after obtaining the blood sample for Day 1. They have to report this in their manuscript.

5) Previously, I have asked whether the change (the delta) in biomarkers of systemic inflammation and change in IGF-I between D1 and D15 were related. The authors replied: As mentioned in the correlation analyses in the Results section (page 9, line 33) IGF-I was not related to any of the biomarkers of systemic inflammation neither on Day 1 nor on Day 15. This however does not answer my question. When the change in systemic inflammatory biomarkers is not related to the changes in leptin then a causal relationship seems less obvious. This should be discussed in the paper.

6) The present results are not discussed/compared enough with available literature. For example, Creutzberg et al (ref 7) is not mentioned once in the discussion.
7)

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

'I declare that I have no competing interests'