Reviewer’s report

Title: Volume, distribution and acidity of gastric secretion on and off proton pump inhibitor treatment: A randomized double-blind controlled study in patients with gastro-esophageal reflux disease (GERD) and healthy subjects

Version: 1 Date: 30 June 2015

Reviewer: Giovanni Sarnelli

Reviewer’s report:

Major:
This is a well conducted study addressing the pathophysiological role and the potential therapeutic implications of acid pocket in GERD. Using a combined pH-metry and MRI study before and after PPI the authors showed that the distribution of gastric secretions in the stomach is abnormal in GERD patients and resulted in prolonged exposure of the EGJ to unbuffered gastric secretions, likely associated to postprandial GERD-symptoms.

Minor:
I understand that the simultaneous assessment of pH-metry and MRI is technically difficult, but this represent a point of weakness. The authors should further comment this point in the discussion and tone down their results.

Given the great progress of the MRI technique do the authors have any data magnetic resonance spectroscopy? If not this should reported as a potential future application.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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