Reviewer’s report

Title: The Prevalence of Gastro-Esophageal Reflux Disease and Esophageal Dysmotility in Chinese Patients with Idiopathic Pulmonary Fibrosis

Version: 2 Date: 14 April 2014

Reviewer: Jeffrey Swigris

Reviewer’s report:

Congratulations on completing your work. The topic of the association between GERD and IPF is an interesting one that merits additional investigation.

Major Compulsory Revisions:

1. The investigators excluded patients with coronary artery disease, HTN or DM—comorbid conditions extremely common among patients with IPF. Doing so, further decreases (in addition to the single-center cohort) the ability to generalize results to the larger IPF universe. As a reader, I would like to see two things in regard to this: 1) mention of this in the “limitations” section of the Discussion; and 2) a flow diagram detailing exactly how many potential subjects were approached for consideration for inclusion, and how many were excluded and for what reason(s).

2. The timing between FVC/DLCO ascertainment and the esophageal studies needs to be stated.

3. Please describe what the normal saline swallows and synthetic gel swallows are used for. Does this confirm position of the catheters? Remember, there will be plenty of pulmonologists interested in this study, and enough information should be given so that the study could be repeated.

4. From where do the normal values come? Are these normal for the catheter manufacturer in Aurora, Colorado, or are these normal for the Chinese population? If they are not normal for the Chinese, then this should be mentioned as a limitation.

5. How much does the PPI rebound effect have after three days? The possibility that this could have influenced results should be made explicit and commented on in the Discussion.

6. Please spell out specific criteria used to define “GERD+”…the reference alone is not satisfactory.

7. Statistical Methods: a) which correlation coefficient was used in correlation analyses? b) In Table 2, the p value for “Peristalsis” is 0.020; and although the poor format of the table makes it difficult to discern, I believe there is a 3x2 table analyzed for “Peristalsis.” If this is true, the correct analysis would thus be a Cochrane Mantel Haenszel test and not a chi-square. This should be added to the Methods section.

8. The first mention of sensitivity and specificity are in the Discussion. These
values should be stated in the Results section. Furthermore, positive and negative predicted values would be helpful.

9. What do breaks (either large or small) in peristalsis signify?

10. Line 144: “The significant differences were…” To what are the authors referring? Do they mean values from the GERD+ group versus the GERD- group?

11. Pulmonologist readers will want to see the correlation between pulmonary function (both FVC and DLCO) and esophageal parameters (motility and reflux).

12. Do these modalities give one the ability to detect hiatal hernia? If so, then the # of subjects with HH should be stated.

13. Can the authors add to the discussion (lines 192-196) by stating how those results should influence our thinking in terms of the upper esophagus and risk for aspiration in particular.

14. A very important variable missing from Table 1 is the # of subjects on PPI for the GERD+ and GERD- groups. Then, a discussion of those results (whatever they are) is needed in the Discussion section.

15. Table 4 is almost impossible to interpret in its current form and should be reformatted.

16. The discussion of the Table 4 results is inadequate: tell the reader the take-away message and how this information helps us in further sorting out the association between the esophagus and IPF.

17. The figures are generally unhelpful.

Minor Essential Revisions:

1. Several grammatical errors throughout the manuscript (e.g., line 61: first use of "EFT" is not spelled out; Table 1 "Heartburn" is misspelled).

Discretionary Revisions:

1. I am surprised there is no pulmonologist on the author line (or one acknowledged for having read the paper prior to submission). Since this paper is likely to be read by pulmonologists (perhaps more pulm than gastro), it may be worthwhile to consider this, since there is a perspective that merits consideration.

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

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

None