Reviewer's report

Title: Dexmedetomidine on tracheal extubation in deeply anesthetized adult patients after otologic surgery: a comparison with remifentanil

Version: 4 Date: 29 December 2014

Reviewer: Max Kelz

Reviewer's report:

In their revision, Fan and colleagues have been very responsive to both reviewers. Their question of the efficacy of remifentanil compared to dexmedetomidine in providing optimal conditions for a deep extubation is identical to their previously published work (see Park et al., Am J Ther 2013). However, in the present work, extension to a cohort of 74 patients presenting for middle ear surgery (instead of 70 patients for thyroidectomy) does increase their discriminatory power.

Major Compulsory Revisions:

A comment on the risks of deep tracheal extubation is required somewhere in the introduction. You have done a lovely job of describing the benefits of this technique in the setting of ENT surgery.

Page. 5, line 11, Is scoring of coughing truly limited to the first 60s? Was any additional evaluation of the smooth extubation done after this time point? In your previous work, T5, T6, and T7 measurements covered the first 5 min after extubation. If no evaluation of the “smoothness” of extubation extended beyond 60 sec, this must be listed as a major limitation in the discussion. Similarly, on page 6, line 2 you refer to the periextubation period in the Park study. Please define how long this periextubation period lasted in both studies.

Page 7, line 7-8, Please list confidence intervals for the percentages of patients with a regular respiratory pattern during cuff deflation in all groups. There is also a typo here as the SD5 group shouldn’t be compared to itself.

Tables 3 and 4, p values can’t be shown as “< 0.00” please put a lower limit on the p-values and use exponents if necessary.

Minor essential revisions:

Page 5, line 2: “Patients who” could not maintain ...

Page 7, line 19, Group SR “than in”

Page 9, line 11, which “does”

Level of interest: An article of limited interest

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.