Reviewer's report

Title: Development of videoendoscopic swallowing provocation test: a cross-sectional study.

Version: 1
Date: 29 January 2015

Reviewer: Shinji Teramoto

Reviewer's report:

Discretionary Revisions

Review for the authors
There is a very good study concerning feeding problems in patients with aspiration pneumonia. The data and their analysis may be acceptable. However, the background understanding of elderly, geriatric medicine and aspiration pneumonia is poor. Some consideration should be added.

Major

#1 The novel examination is always interesting and challenging. However, the current approach totally mimics to the previous method of SSPT. In this point of view, the novelty of the current study is not remarkable.

In your introduction section, you stated “This study has advantage to detect silent aspiration especially for unawakened person, however, SSPT has some disadvantages; namely, 1) the location of the tip of the nasal tube inserted into the pharynx cannot be identified, and 2) the supine position used in this test is not suitable for drinking water, suggesting that the test is difficult to employ in the clinical assessment of swallowing function.”

This is not logical story. The location of the tip of the nasal tube inserted into the pharynx can be easily identified by physicians and nurses. Further, it is not necessary to identify the solid placement of the nasal catheter in general. The small catheter logically placed in the middle of pharynx in blind fashion.


Jobin V, et al, Swallowing function and upper airway sensation in obstructive sleep
Further, there is a very confusion of the notion of dysphagia concerning pneumonia risk and eating. The SSPT developed for the predicting of pneumonia risk, but not of eating miss-swallowing.

The Kagaya’s paper is totally confused in terms of geriatric medicine. The paper is only utilized for the neuro-rehabilitation.

Dysphagia includes eating/meals related abnormal swallowing function and salve swallowing during day and night. The clinical significance of above two types of aspiration is totally different.

The current approach using video-endoscopy is inheriting. The merit vs de-merit should be carefully discussed.

#2 Swallowing function is necessary for eating, and it is coupled with breathing. It is well known that the breathing cycle is well coordinated with the swallowing in humans. The current approach does not detect the breathing. The risk of aspiration during inspiratory phase of breathing should be discussed.


#3 your data shows significant relationship between FOIS score and Latent time for evoked swallowing reflex in Table 2. The scoring of FOIS is categorical scale. The absolute score may not indicate the real power and activity of oral intake linearly. However, your data shows significant relationship between FOIS score and Latent time for evoked swallowing reflex in Table 2. The swallowing reflex quality may have an important role in the oral intake ability. You should discuss about the critical role of swallowing reflex ability in the oral intake function.

#4 the current examination using endoscopy is interesting, but the LT for swallowing reflex is quite slow response which has been previously reported using similar system. In my understanding, the swallowing reflexes were usually evoked by the water stimulation in one to three seconds. You may discuss the different results between the two differ bet studies.

#5 In your discussion,“To our knowledge, no previous study has examined the
factors that affect initiation of oral intake after AP. Previous studies on predictive factors for starting total oral intake in critically ill patients have assessed stroke, traumatic brain injury and malignancy"may not be true.

You can find some important discussion following papers.

Mateu Serra-Prat et al.
Oropharyngeal dysphagia as a risk factor for malnutrition and lower respiratory tract infection in independently living older persons: a population-based prospective study
Hanson LC1, Ersek M, Gilliam R, Carey TS. Oral feeding options for people with dementia: a systematic review.
J Am Geriatr Soc. 2011 Mar;59(3):463-72. doi:
Warnecke T et al. Assessment of aspiration risk in acute ischaemic stroke—evaluation of the simple swallowing provocation test
J Neurol Neurosurg Psychiatry 2008;79:312-314

#6 Discussion
In stroke patients, absence of the gag reflex, age, stroke subtype, consciousness disturbance, modified Rankin Scale score, National Institutes of Health Stroke Scale, and activities of daily living
Have been found to be related to initiation of oral intake. (ref5-8,15)
This discussion was almost the same works by the determined authors.
I think one or two references are enough for this discussion.

#7 Discussion
In traumatic brain injury patients, the Glasgow Coma Scale, ventilation period, Rancho Los Amigos Scale, activities of daily living, swallowing function at baseline, and presence of tracheostomy have been identified as significant predictive factors for oral intake 16-18.

The traumatic brain injury patients are very minor population of elderly hospitalized and/or healthcare-associated patients. Post-stroke patients are major contributors for aspiration pneumonia.

#8
The ref 10 is not good paper. The Japanese Respiration Society defines as nursing and healthcare associated pneumonia. Further, A-DROP system was definitely described by the other paper. This reference should be replaced as

Minor
“ref 22 is duplicated as ref 3.

Level of interest: An article of importance in its field

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests