Peer review file

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Reviewer A

I have reviewed the manuscript entitled "Comparing the rate of fiberoptic bronchoscopy use with a video double lumen tube versus a conventional double lumen tube- a randomized controlled trial." The authors have compared both the conventional double-lumen tube (DLT) with the Viva Sight DLT. They reported some advantages with the use of the Viva Sight DLT (less time for intubation, less malposition), but overall cost with the use of fiberoptic bronchoscopy was not different.

The authors reported that turning the patient into lateral decubitus position the Viva Sight DLT had less malpositions. Question, when you turned the patients into lateral decubitus position was the Viva Sight DLT still connected to the camera monitor?

If so, did you do anything different at the time to maintain a good opposition of the DLT. Otherwise the findgs are interesting.

Reply: Yes, when we turned patients from supine into the lateral decubitus position, the VivaSight DLT was still connected to the camera monitor, thus giving continuous visualization of the tube's position within the airway. Thus, if the tube was seen to be migrating during positioning, we could more readily in real time adjust the position of the DLT rather than waiting for positioning to be completed and inserting a separate fiberoptic bronchoscope to re-confirm positioning of the DLT.

Reviewer B

Comment 1: This is an interesting article that compares two different procedures for double lumen intubation, but some issues must be assessed.

In the statistical analysis, can you explain why the Kruskal-Wallis test was chosen?

Reply 1: The Kruskal-Wallis test, which is a nonparametric test, was chosen as the data were not normally distributed. Normality is needed in order to use a t-test.

Comment 2: Please specify the formula used for power calculation.

Reply 2: A reference to the formula is stated below.

Selvin S. Chapter 3: Statistical Power and Sample Size Calculations. In: Selvin S, ed. Statistical Analysis of Epidemiologic Data. 3rd ed. New York, NY: Oxford University Press; 2004: 75-92.

Comment 3: Although the statistical power is sufficient, the limited sample size does not guarantee protection from possible confounding variables: for this reason, I should modify the conclusion, using "seems to be" instead of "is" (line 234).

Reply 3: We have modified our text as advised. In addition, we have reworded the sample size calculation in the manuscript.

Changes in the text: See Page 12, line 240 and Page 7, line 149.

Comment 4: With regard to minor points: the incidence of dislodgement was quite high, up to 48% in the c-DLT group. A comment regarding these data would be useful; please specify the most frequent type of dislodgement.

I think that, if these critical issues are resolved, your work might be interesting for the readers of Journal of Thoracic Disease.

Reply 4: The most frequent type of dislodgement was that the DLT would come out slightly during patient positioning, so that the bronchial balloon was not entirely within the left mainstem bronchus and had to be reinserted slightly. In almost all cases, this was within 1cm of its original position.

Reviewer C

The authors (AA) present a prospective randomized study with the aim of assessing the incidence of fiberoptic bronchoscope (FOB) usage in patients who underwent intubation with conventional-double lumen endotracheal tube (c-DLT) or VivaSight DLT (VS-DLT).

The AA also assessed the time to correct tube placement and the incidence of malposition, and compared costs of VS-DLT and c-DLT.

There are some positive aspects that are taken into account if compared to previous

studies such as costs and that VS-DLT is susceptible to obstruction from secretions.

Speaking of costs this results can't be reliable in all clinical practices due to an increment of differential costs. Not it all hospitals anesthesiologists use FOB to evaluate DLT position in 100% of the cases. Sometimes anesthesiologists perform conventional clinical maneuvers (ie auscultation and/or checking lung compliance by manual ventilation) to verify the correct DLT position, and use FOB only when they suspect malposition.

I would advise to include in the text references to support the statement: "We hypothesized that a FOB would be required in 100% of c-DLT subjects" such as: "1-de Bellis et al" or more recent studies.

References

De Bellis M, Accardo R, Di Maio M, et al. Is flexible bronchoscopy necessary to confirm the position of double-lumen tubes before thoracic surgery? European Journal of Cardio-thoracic surgery 40 (2011) 912-918

Reply: We have modified our text as advised.

Changes in the text: See Page 14, line 294.