Article information: https://dx.doi.org/10.21037/joma-23-16

Abstract

P value for trauma is different to that reported in the results (p=0.08 vs P=0.008)
Reply: Abstract has been corrected. Line 52

Conclusion

A concept is introduced that is not investigated and not supported by any data.
Reply: The rationale for this conclusion is elaborated upon in the full text of the article and acknowledgement is made of the need for further work in this field. Yeow (ref 3)– obese model,, a longer depth of introducer and a lesser degree of trauma compared to SBT. Yoew studied an older version with adjustable depth guards and the study asked precipitants to use a 30mm depth – identical depth to the current Red guide.

Introduction

Line 64. DAS recommendation is an 8 -10 cm incision.
Reply: Updated line 75. The text now properly reflects the DAS recommendation.

Methods

As a general principle the methods should be sufficiently detailed for an interested person to replicate the experiments.

Please provide more detail regarding the model. Is this a trachea only or is the larynx present and in continuity?
Reply: Updated line 101. The text now reflects the model consisting of a larynx with attached trachea

Was the allocation to technique randomized?
Reply: Updated line 134. It was not randomized. The participants used the CricGuide first and then SBT. The text has been updated to make this clearer.

How was the CTM identified, assuming there was one?
Reply: See updated line 137 & table 1. The model was a porcine larynx and attached trachea and therefore there was a CTM. As per the DAS guideline for scalpel cricothyroidotomy in the obese patient with impalpable landmarks, the CTM was identified following a recommended midline incision.

Define false passage

Reply: *Added line 146.* ==*The text has been amended to include this definition.*==

Provide additional detail for the cric-guide technique – bougie size, ETT size etc.

Reply: *Updated line136.* ==*The text has been amended to include sizes*==

Provide details for the SBT technique: blade, bougie, ETT etc

Reply: *Updated line 139.* ==*The text has been amended to include sizes*==

Please reference the trauma scale.

1. *Reply: Reference added line 337.* Maini, N; Crawley SM. A pilot study of a novel cricothyroidotomy device in Thiel cadaveric models. European Journal of Anaesthesiology 38(3):p 316-317, March 2021. | DOI: 10.1097/EJA.0000000000001340

I am unclear as to how a full thickness penetration could be determined from a photograph.

Reply: *Added line 160.* ==*A description of this has been added to the text.*==

The approach to determining the learning curve seems over complicated and limits comparisons with similar work. Why was this statistical approach used?

Reply: *See reference 8. Quoted by G.Mcleod in response to this query* - Learning curves are analysed using within subjects statistics. - because they are comparing themselves
Therefore it is best to display individual curves rather than perform a between subjects analysis which will have too much random error
The log-log plot is used because learning curves follow the power distribution - not exponential - A straight line ensues from log-log conversion of a power curve

This allows analysis of where you start, the slope, the error around the slope and where you end up

Results

The scales differ from the descriptions in text (posterior wall trauma)

Reply: *Updated Table 1.*

Were all attempts successful?

Reply: *Added line202.* ==*This has been made clearer in the text.*==

Were the participants allowed to continue until the assessor determined the ETT was in the trachea?

Reply: *Yes, see line 202.*

161- This is not a properly constructed sentence.

Reply – *Line 208 refined*

164 – the scale should be in the methods
Reply: Added line 146

Where was the entry point into the airway? Direct tracheal entry or CTM? This has implications for injury pattern.
Reply: Added line 205

I suggest the data for learning is summarized in an understandable form here.
Salah N et al. Airway injury during emergency transcutaneous airway access: a comparison at cricothyroid and tracheal sites. Anesthesia & Analgesia. 2009 Dec 1;109(6):1901-7.

Discussion

The authors do not discuss their findings in comparison to the work of others.

==Reply== *– Discussion added line 228*

The evaluation of the existing literature in this area is incomplete.

==Reply== *– see line 228 onwards*

The authors propose a technique that was not studied and for which there is no data and for which their model is not applicable. It would be preferable to concentrate on what has been studied.

Reply – see updated discussion and similar conclusions of previously completed work (referenced

The authors write about a technique that they did not study and for which they have no data
Reply – see above

There is no yellow cric guide in appendix 1.
Reply: Ameneded to different sized. Line 299

==Reviewer B==

FONA is needed to practice by the clinicians before facing the real world emergency situation.
This study showed how to improve performing the procedure.
The methodology and statistics are well done.
Reply: Thank you