Airway management in Ludwig’s angina: what is necessary and what is sufficient condition?

Manejo das vias aéreas em angina de Ludwig: o que é necessário e qual é a condição adequada?

Dear Editor,

I’ve followed the topic of “Airway management in Ludwig’s angina” in your valuable journal. As Fellini et al. described, decision making regarding airway management in such a disastrous situation will be based on clinical feature, urgency of the case, and technical availability. There is a rule in our routine practice as anesthesiologists: there is not the safest anesthetic agent, nor the safest anesthetic technique; there is only safest anesthesiologist! So being an expert anesthesiologist is the necessary condition, but not sufficient, for making a best decision for airway management in patients with compromised airway. Maintaining spontaneous breathing is a key element in airway management of a patient with compromised airway. Accordingly, when I read a letter of Guedes, I understood that the situation must have been completely different. Co-administration of clonidine, fentanyl and midazolam may put the patient at risk of collapsing the airway. Because “you cannot fight the success”, successful airway management in this patient can imply that the best person who can make the best decision about the patient is the one who is at the bedside. In other words, being in the scene is the sufficient condition for making the best decision regarding airway management method in patients with Ludwig’s angina or any other kind of compromised airway.

Conflicts of interest

The author declares no conflicts of interest.

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Available online 14 May 2019

https://doi.org/10.1016/j.bjane.2019.03.008
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Relevance of single-lumen endotracheal tube diameter and type of bronchial blocker for lung isolation in an emergent case

Relevância do diâmetro do tubo endotraqueal de único lúmen e do tipo de bloqueador brônquico para o isolamento pulmonar em um caso de emergência

Dear Editor,

We would like to add some comments to the clarification that Grocott provided about the published paper by Almeida et al., “Use of bronchial blocker in emergent thoracotomy in presence of upper airway hemorrhage, and cervical spine fracture: a difficult decision”.

In the reported case, the exchange of the Single-Lumen endotracheal Tube (SLT) to a larger diameter tube may be advisable.

Grocott reminded the readers that the minimum diameter ETT to perform lung isolation with an EZ Blocker Teleflex, Morrisville, USA, under fiberoptic visualization is considered 7 mm. In this case, a thin bronchoscope Ambu aScope S slim 3.8/1.2™, Ambu A/S, Ballerup, Denmark (outer diameter: 3.8 mm) was used, which would allow simultaneous use of the EZ Blocker through the SLT.

Nevertheless, during initial placement, verification of position and eventual repositioning of the Bronchial Blocker (BB) under bronchoscopy, a tube with a larger diameter than 7 mm will allow better ventilation. Because the free lumen of the tube that remains available for gas flow is larger.

Considering the condition of the patient, it was a valuable option to exchange the SLT from a 7 mm to 8 mm. Moreover, the fact that the minimum diameter of tube needed is 7 mm to place an EZ-Blocker does not imply that larger tubes cannot be used if a small diameter fiberscope is not available.

The exchange, considering the benefit–risk ratio, may be performed very quickly after careful aspiration of the oropharynx, without extension of the head, which will not provoke significant blood entry into the trachea from tongue bleeding.

As it was explained in the paper by Almeida et al., ad initium the patient did not have endobronchial hemorrhage (only significant tongue hemorrhage). It was not present during the first positioning of the bronchial blocker, but throughout the case due to the surgical manipulation and aggravation of the coagulopathy.
If there was significant endobronchial hemorrhage ad initium the fiberoptic visualization would be affected, which would compromise the initial positioning of any BB or Double Lumen Tube (DLT). In that case, theoretically, a blind utilization of BB as Arndt blocker™ (Cook Critical Care Inc., Bloomington, IN) or similar (as mentioned by Grocott),1 Univent™ endobronchial tube (Fuji Systems Corporation, Tokyo, Japan) or DLT could be better options, because the rate that both extremities of EZ Blocker™ enter in the same bronchus at the first attempted is elevated.3 The usefulness of the utilization of bronchial blockers, placed blindly, namely the Univent™ endobronchial tube, for the tamponade of endobronchial hemorrhage has been reported.1 However, there is no significant evidence comparing the success rate of the first passage between different bronchial blockers, namely when their insertion is performed blindly. Despite Grocott et al.4 have shown that, comparing with DLT, the Arndt Blocker™ took a similar amount of time to provide lung isolation in minor thoracotomy cases, a systematic meta-analyse has shown that in lung isolation cases, DLT are placed quicker and more reliably that BB (in general).3 It is also important to emphasize that most of the authors strongly recommend that bronchoscopy is used in lung isolation,3 especially using BB because the rate of malposition is higher. They are not easy to position and frequently dislocate during repositioning and surgical manipulation.5 In general, a significant advantage of EZ blocker’s™ among BB is the less risk of displacement during the procedure, which is related to the anchorage of the bifurcation of blocker on the carina, which makes reposition easier if necessary to optimize the occlusion of the right superior lobe bronchus.1 This advantage have not been proven, because comparative studies between different BB are lacking, particularly in emergent cases.

In summary, a large SLT may improve ventilation, when a BB under bronchoscopy is used in emergent cases and a predictable technique, even if slightly slower, may be preferable when there is not a bleeding distal to glottis. The risk of displacement of BB throughout the case should be the main concern and, on the other hand, the blind first passage success rate of the BB would be irrelevant in this case.

Acknowledgments

I would like to thank Dr. Carla Pereira and Dr. José Pedro Assunção for all the support provided.

Conflicts of interest

The author declares no conflicts of interest.

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Available online 30 April 2019  
https://doi.org/10.1016/j.bjane.2019.03.009  
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