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BJAN-D-20-00037 - Letter to the Editor**Airway management in obese patients**

Manuel Ángel Gómez-Ríos^{a,*}, David Gómez-Ríos^b, Zeping Xu^c, Antonio M. Esquinas^d

^a Complejo Hospitalario Universitario de A Coruña, Department of Anaesthesiology and Perioperative Medicine, A Coruña, Spain

^b Medical University of Pleven, Pleven, Bulgaria

^c Jiangsu Cancer Hospital, Department of Anesthesiology, Nanjing, China

^d Hospital General Universitario Morales Meseguer, Intensive Care Unit and Non Invasive Ventilatory Unit, Murcia, Spain

*** Corresponding author.**

E-mail: magoris@hotmail.com (M.Á. Gómez-Ríos).

ORCID ID: <https://orcid.org/0000-0002-0183-1098>

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Dear Editor,

We read with interest the article of Turna et al.[1] on their randomized trial of performance of the Airtraq videolaryngoscope versus the intubating laryngeal mask airway (ILMA) in obese patients. There are several aspects to the study we believe necessary to consider.

Airway management in obese patients is a challenging issue associated with a high incidence of complications. The accumulation of adipose tissue causes several changes in airway anatomy and respiratory function. Thus, obesity is associated with, among others, decreased pharyngeal area, obstructive sleep apnea, restrictions in neck flexion, narrow jaw opening, enlarged tongue, reduction in functional residual capacity and alveolar oxygen reserve, and increase in O₂ consumption. Therefore, obese patients are at increased risk of difficult mask ventilation, difficult tracheal intubation, and hypoxemia during the process of securing the airway, even after short periods of apnea. The core recommendations of the recent guidelines focus on limiting the duration and number of attempts at tracheal intubation in order to achieve early atraumatic intubation, the

philosophy on which the vortex approach is based. Accordingly, an undue number of attempts to test a device is not justified. Thereby, it was published in 2016 a useful consensus on airway research ethics that every researcher should take into account.[2] It recommends limiting to a maximum of two failed attempts before following the usual progression in the airway management algorithm and restricting the inclusion of patients to ASA 1 and 2 to minimize harm.

Likewise, direct laryngoscopy could not be the most suitable rescue method after the unsuccessful use of a videolaryngoscopy or an ILMA given that its probability of success can be lower in this situation. Perhaps, it would have been more appropriate to use the other device under study as a backup plan. In addition, any blind technique should be avoided due to the significant failure rate, the frequent need for repeated attempts, and the potential for airway trauma, which can result in deterioration of ventilation.[3] Therefore, fiberoptic intubation through the ILMA is the method recommended.

On the other hand, testing a laryngeal video mask as the Totaltrack VLM (Medcomflow S.A., Barcelona, Spain) instead of the ILMA versus the Airtraq would allow a more adjusted comparison. In fact, it is a device similar to Airtraq since it has a guide channel and a fiberoptic system with LCD screen that provides a view of the larynx and tracheal tube as it passes through the vocal cords.[4] It also combines a supraglottic airway device with the described structure allowing to perform intubation after securing the airway and establishing optimal ventilation limiting the period of apnea.[5] This is especially advantageous in obese patients since they have reduced physiological reserves.[5] Similar clinical trials are necessary to determine the most reliable and safe airway method for this population.

Conflicts of interest

The authors declare no conflicts of interest.

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