Attitudes of firefighters towards the use of supraglottic airways devices

To the Editor,

In the article “Advanced airway management in out of hospital cardiac arrest: A systematic review and meta-analysis” by White et al. published in The American Journal of Emergency Medicine, the authors indicate that the overall heterogeneous benefit in survival with ETT was not replicated in the low risk randomized controlled trials, with no significant difference in survival or neurological outcome [1]. It is worth noting that endotracheal intubation is a highly specialized procedure, requiring from the person performing it a lot of knowledge and skills in its use. As Buis et al. indicate, the learning curve for direct laryngoscopy is about 50 intubations [2]. In the case of videolaryngoscopy it is much lower [3-5]. After all, because of the cost of videolaryngoscopes, they are relatively rarely used in pre-hospital settings. An alternative to them can be supraglottic airway devices, which in present times are used not only in pre-hospital settings [6,7], but also under operating theatre conditions [8].

The aim of the study was to assess the attitudes of firefighters towards the use of supraglottic airway devices.

The survey involved 78 firefighters working in the State Fire Service in Poland and participating in rescue operations as part of their professional work. All study participants took part in training in airway management. After the theoretical training, they had the opportunity to practice the practical application of various supraglottic airway devices in the conditions of simulated airway management. For this purpose an adult airway management simulator was used (Sakamoto Airway Management Trainer; SAKAMOTO MODEL CORPORATION; Osaka, Japan).

The participants used the following devices: (1) standard Laryngeal Mask Airway (Skamex, Lodz, Poland); (2) iGEL mask (Intersurgical Ltd., Berkshire, UK); Ambu® AuraGain™ Disposable Laryngeal Mask (Ambu A/S, Kopenhagen, Denmark); (4) Intubating Laryngeal Tube iLTS-D (iLTS-D; VBM Medizintechnik GmbH, Sulz, Germany); (5) EasyTube (Rüsch, Kenen, Germany).

After the theoretical training, they completed a questionnaire, in which they assessed the preferences and ease of performing airway management in the case of various supraglottic airway devices. The ease of airway management was assessed on a 100-degree scale, where ‘1’ meant a very easy procedure and ‘100’ a very difficult procedure.

The average age of study participants was 33.5 ± 5.6 years. The study participants did not have medical education. During the training, all participants performed airway management using each method. The most preferred supraglottic airway devices indicated by the participants were iGEL, then iLTS-D, and the least preferred were the standard LMA. The ease with which airway management could be carried out using different supraglottic airway devices varied and was adequate: 10 ± 8 points for iGEL, 17 ± 8 points for iLTS-D, 23 ± 10 points for EasyTube, 46 ± 13 points for AMBU, and 52 ± 23 points for standard LMA.

As the above study indicates, there are differences in the use of different supraglottic airway devices. The iGEL laryngeal mask is the most preferred type of supraglottic airway devices among the firefighters surveyed. The training of rescuers in the use of SADs can be a key element of rescue operations, even more so that these devices in comparison with endotracheal intubation do not require from the rescuer high practical skills.

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Kurt Ruetzler
Department of General Anesthesiology, Anesthesiology Institute, Cleveland Clinic, Cleveland, OH, USA

Agnieszka Madziala
Marcin Madziala
Michal Pruc
Dominika Dunder*
Lazarski University, Warsaw, Poland
E-mail address: dominikadunder.sjc@gmail.com (D. Dunder).

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