LETTER TO THE EDITOR

THE ETVIEW TRACHEOSCOPIC VENTILATION TUBE FOR TRAUMA PATIENT INTUBATION

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Sir,

We read the article by M. Ladny [1] with great interest. The authors discuss the extremely important problem of intubating a patient who has a difficult access to the airways. It is worth highlighting that injuries are currently one of the main challenges that medical staff has to face [2–4]. In traumatic patients, one of the main causes of cardiac arrest is the inability to maintain an airway patency which leads to deep hypoxia and subsequently to cardiac arrest. This is especially common in patients with cranio-cerebral trauma [5]. The ability to maintain the airway patency in trauma patients is therefore a key element of emergency proceedings as it may cause the deep hypoxia and subsequently the cardiac arrest. However, the efficacy of securing the airway patency with the usage of an intubation tube performed with direct laryngoscopy is insufficient in the conditions where the emergency medicine operates [6–8]. In order to improve the efficacy in the aforementioned conditions, we should focus on researching new, more effective methods of endotracheal intubation, which should increase the effectiveness of the first intubation attempt and shorten the time of the procedure.

The aim of the study was to evaluate the effectiveness of intubation with the use of the ETView tracheoscopic ventilation tube vs. standard Macintosh laryngoscope in conditions of immobilization of the cervical spine.

In order to simulate a patient requiring endotracheal intubation, a Resusci Anne simulator (Laerdal, Norway) was used. It was secured to a spinal board with side head stabilizers and additionally the Patriot neck collar (Össur Americas, USA) was attached to it. The study utilized two types of laryngoscopes: The Macintosh standard laryngoscope with blade no. 3 (Gima S.p.A., Italy) and the ETView tracheoscopic ventilation tube (ETView Ltd, Israel; Fig. 1). For each intubation method endotracheal tube with 7.0 internal diameter were used. In order to standardize the participants’ knowledge, similarly to other [4, 9, 10] studies, a short training in the use of ETVIEW direct laryngoscopy and videolaryngoscopy was performed just prior to the study. After theoretical part, the participants had practical training in performing endotracheal intubation utilizing both techniques (5 min for each device) on normal airway. Both the order of participants and endotracheal intubation methods were randomized with the coin toss technique.

The study included 52 nurses, with mean age of 32.5 ± 8.5 years, and mean work experience of 8 ± 4.5 years. All participants declared having knowledge and skills with direct laryngoscopy prior to the study. The effectiveness of the first intubation attempt for the Macintosh laryngoscope was 34.6%...
vs. 90.4% (p < 0.01) for ETView. The time of performing the procedure of intubation with the use of Macintosh laryngoscope and ETView varied and amounted for 48.5 ± 9.5 vs. 24 ± 12.2 seconds (p < 0.01), respectively. Study participants assessed the degree of glottic visualization on a 100-point scale. For the Macintosh laryngoscope this parameter amounted for 34 ± 8 points vs. 90 ± 8 points for ETView (p < 0.01). 100% of participants in the study chose ETView as a method of choice of intubation during in real life rescue operations.

To sum up, the effectiveness of direct laryngoscopy is insufficient in this simulation study. The ETView tracheoscopic ventilation tube, when compared with the Macintosh laryngoscope allows for the higher efficiency of the first intubation attempt and shortens the time of the procedure.

**Conflict of interest:** None declared.

**REFERENCES**


