Evaluation of videolaryngoscope outside the operating room

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Background-Aim

Tracheal intubation outside the operating room (OR) tends to be more difficult due to inexperienced nursing staff, inability to administrate muscle paralysis especially when difficult airway is suspected, and other factors such as patient's position on bed and inadequately working devices like suction. Target of this clinical study is the evaluation of videolaryngoscope in this setting.

Material-Methods

In a course of two years since our institution obtained the videolaryngoscope Glidescope Cobalt AVL Verathon®, 1463 patients were asked for intubation outside the OR. 853 of them were outpatients in the Emergency Room (ER), and 610 were inpatients in the wards. We recorded the number of them who could not be intubated by experienced qualified anaesthesiologists using the “conventional” methods of intubation (use of external tracheal pressure, stylet, and bougie), as well as the time needed for videolaryngoscopy intubation.

Results

842 (98.7%) among patients in the ER and 587 (96.2%) in the wards were intubated without the use of videolaryngoscope (mean intubation time 124 ± 8 sec and 135 ± 11 sec respectively). When other attempts failed, the anaesthesiologist used the videolaryngoscope. All patients (100%, $p=0$) were successfully intubated (mean intubation time 56 ± 7 sec). Intubation outside the OR is challenging even for the qualified anaesthesiologist and videolaryngoscope experienced use might be useful in such situations.

Conclusion

Videolaryngoscope use outside the OR appears to be an effective solution when other intubation methods did not succeed. More clinical data are needed to support this option.