Video Laryngoscopes and Best Rescue Strategy for Unexpected Difficult Airways: Do Not Forget a Combined Approach with Flexible Bronchoscopy!

To the Editor:

Asai[1] describes the issue of the unexpected difficult airways, recommending to avoid repeated attempts and to seek an effective alternative strategy early. Based on the results of Aziz *et al.*,[2] Asai suggests that video laryngoscopy may represent the best rescue alternative and that a randomized trial is highly desirable. Failure rates of rescue video laryngoscopy are nonnegligible, as shown by Aziz *et al.* (8% incidence),[2] which is not trivial considering the number of surgical procedures performed worldwide.[3] Although video laryngoscopes may be helpful, they seem to be far from the ultimate solution and, when designing a randomized trial, the anesthesiology community should not miss the opportunity to evaluate something else.

Several studies compare single devices in difficult airways scenarios, but we believe that the effective strategy may be found in a combined technique using the laryngoscope to facilitate the introduction of fiberoptic bronchoscopy. Such a technique has been described repeatedly.[4–6] The advantages of this combined approach are better understood when analyzing the intubation process according to its two components, visualization of the glottis and introduction of the endotracheal tube.[7] During conventional laryngoscopy, endotracheal tube introduction is usually easy because the axis of introduction overlaps the operator's view. When a good view of the glottis is not achieved, rescue video laryngoscopy may be used to improve visualization. However, video laryngoscopy has the limitation of different axes between visualization and endotracheal tube introduction, which may contribute to the device failure and is not solvable by technology progresses, because the flaw is an integral part of the device. On the other side, the fiberoptic bronchoscope allows for the easy introduction of the endotracheal tube once the glottis is identified, but the fiberoptic bronchoscopy introduction is challenging in patients under general anesthesia. Such an issue may be bypassed by the aid of a laryngoscopy performed by a second operator. Several guidelines suggest asking early for help after failed laryngoscopy[8–10]; therefore, the availability of another operator is not a limitation for the implementation of the combined technique, whereas its main boundaries are the presence of blood and/or secretions after repeated attempts and some cultural limitations (prompt fiberoptic bronchoscope availability in the operating room and anesthesiologists' skills with fiberoptic bronchoscopy during emergency scenarios). For decades we sought the holy grail in a single device facing unacceptable failure rates: when another operator is available and fiberoptic bronchoscope is at hand, the combined laryngo-bronchoscopy approach can be the inexpensive and safe rescue strategy that deserves to be fully evaluated, while we await the perfect intubation tool!

Competing Interests

The authors declare no competing interests.

Filippo Sanfilippo, M.D., Ph.D., Giuseppe Chiaramonte, M.D., Francesco Sgalambro, M.D. Mediterranean Institute for Transplantation and Advanced Specialized Therapies, Palermo, Italy (F.S.). fgsanfilippo@ismett.edu

References

1. Asai T: Avoiding repeated attempts at tracheal intubation: Can videolaryngoscopes be the answer? Anesthesiology 2016; 125:615–7
2. Aziz MF, Brambrink AM, Healy DW, Willett AW, Shanks A, Tremper T, Jameson L, Ragheb J, Biggs DA, Paganelli WC, Rao J, Epps JL, Colquhoun DA, Bakke P, Kheterpal S: Success of intubation rescue techniques after failed direct laryngoscopy in adults: A retrospective comparative analysis from the Multicenter Perioperative Outcomes Group. Anesthesiology 2016; 125:656–66
3. Weiser TG, Regenbogen SE, Thompson KD, Haynes AB, Lipsitz SR, Berry WR, Gawande AA: An estimation of the global volume of surgery: a modelling strategy based on available data. Lancet 2008; 372:139–44
4. Greib N, Stojeba N, Dow WA, Henderson J, Diemunsch PA: A combined rigid videolaryngoscopy-flexible fibrescopy intubation technique under general anesthesia. Can J Anaesth 2007; 54:492–3
5. Lenhardt R, Burkhart MT, Brock GN, Kanchi-Kandadai S, Sharma R, Akça O: Is video laryngoscope-assisted flexible tracheoscope intubation feasible for patients with predicted difficult airway? A prospective, randomized clinical trial. Anesth Analg 2014; 118:1259–65
6. Sgalambro F, Sanfilippo F, Santonocito C, Caltavuturo C, Grillo C: Virtual laryngoscopy and combined laryngoscopic-bronchoscopic approach for safe management of obstructive upper airways lesions. Br J Anaesth 2014; 113:304–6
7. Sgalambro F: Unexpected difficult intubation: many algorithms, many devices, many techniques, the best choice would be not having to choose: Is it utopian? Br J Anaesth 2016; 117:672–4
8. Petrini F, Accorsi A, Adrario E, Agrò F, Amicucci G, Antonelli M, Azzeri F, Baroncini S, Bettelli G, Cafaggi C, Cattano D, Chinelli E, Corbanese U, Corso R, Della Puppa A, Di Filippo A, Facco E, Favaro R, Favero R, Frova G, Giunta F, Giurati G, Giusti F, Guarino A, Iannuzzi E, Ivani G, Mazzon D, Menarini M, Merli G, Mondello E, Muttini S, Nardi G, Pigna A, Pittoni G, Ripamonti D, Rosa G, Rosi R, Salvo I, Sarti A, Serafini G, Servadio G, Sgandurra A, Sorbello M, Tana F, Tufano R, Vesconi S, Villani A, Zauli M; Gruppo di Studio SIAARTI "Vie Aeree Difficili"; IRC e SARNePI; Task Force: Recommendations for airway control and difficult airway management. Minerva Anestesiol 2005; 71:617–57
9. Apfelbaum JL, Hagberg CA, Caplan RA, Blitt CD, Connis RT, Nickinovich DG, Hagberg CA, Caplan RA, Benumof JL, Berry FA, Blitt CD, Bode RH, Cheney FW, Connis RT, Guidry OF, Nickinovich DG, Ovassapian A; American Society of Anesthesiologists Task Force on Management of the Difficult Airway: Practice guidelines for management of the difficult airway: an updated report by the American Society of Anesthesiologists Task Force on Management of the Difficult Airway. Anesthesiology 2013; 118:251–70
10. Frerk C, Mitchell VS, McNarry AF, Mendonca C, Bhagrath R, Patel A, O'Sullivan EP, Woodall NM, Ahmad I; Difficult Airway Society intubation guidelines working group: Difficult Airway Society 2015 guidelines for management of unanticipated difficult intubation in adults. Br J Anaesth 2015; 115:827–48

(Accepted for publication March 13, 2017.)