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LETTER TO THE EDITOR

Can intraoral mask be a safe alternative for COVID-19 patients?

Dear Editor,

We have read with great interest the article of Foley et al.[1] concerning difficult airway management in adult COVID-19 patients and try to implement their statement in our clinical practice. In this article Society of Airway Management emphasize that COVID 19 patients may have both physiologically and anatomically difficult airway. For this reason, effective pre-oxygenation and mask ventilation options, which reduce aerosol formation, gain importance in these patients who can desaturate rapidly. An important focus of the article is to optimize successful airway management while minimizing healthcare workers' exposure risk.

Foley et al.[1] recommend using a well-sealed facemask with HEPA filter for pre-oxygenation prior to induction. They also recommend performing bag-mask ventilation with a well-sealed facemask after induction. In case of a significant leak they recommend using a supraglottic device.

Figure 1 Intraoral mask.

We hypothesize that the intraoral mask can be used successfully in the preoxygenation and mask ventilation of these patients by preventing leakage and aerosol formation, and we wanted to share it with anesthesiologists' public opinion. Although there is no literature proving that aerosol formation is reduced when intraoral mask is used; we think that there is a literature that can give an idea on this subject.

Figure 2 Airway management with an intraoral mask.

Nimmagadda et al.[2] showed on healthy volunteer that that the intraoral mask is as effective as the classic face mask in achieving maximal pre-oxygenation during tidal volume breathing. They stated that in patients with a high risk for developing leak under the face mask (e. g. Patients with beard) would benefit from the use of the NuMask because of a different anatomical seal.

Intraoral mask is positioned inside the mouth between lips and teeth of the patient like a snorkel and well tolerated by awake patients. It can be used even with novice users and practitioners with small hand by reducing hand interface size[3,4] (Figs. 1 and 2). Additionally intraoral mask can be used for noninvasive ventilation in intensive care for respiratory support.[5]

As a result, we wanted to share our opinion immediately to open it up for discussion by anesthesiologists and other experts interested in airway management. Intraoral mask may be useful in confirmed and suspicious COVID-19 patients' airway management and non-invasive ventilation management with advantage of minimal air leak and effective ventilation.

Conflicts of interest

The authors declare no conflicts of interest.

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A forceps-assisted fiberoptic bronchoscopic intubation

Dear Editor,

In 1967, Peter Murphy firstly introduced Fiberoptic Bronchoscope (FOB) intubation and this airway management technique has a quoted success rate of 88%∼100%. Till now, FOB intubation has been considered as the golden standard in difficult airway management, whatever anticipated or unanticipated.[1] Although there are many new modern airway equipment available, the role of FOB is imperative in a clinical context as part of decision-making and management of airway strategy. However flexible FOB intubation has been performed less frequently, anesthetists must apply theoretical knowledge and practical airway techniques via workshops, simulation, and regular hand-on practice. The more FOB-experienced the anesthetist is, the fewer complications occur. Its success and outcomes depend on the operators' experience, which requires complex psychomotor skills and regular practice.[2] In other words, FOB intubation is a difficult airway management technique.

Shikani Optical Stylet (SOS) is a malleable, J-shaped, stainless-steel endoscope. Recently, this rigid optical stylet has demonstrated promise in assisting difficult intubation. Reusable and portable scope with a shapeable stainless-steel stylet is the most obvious advantage of SOS. Some studies found it was more effective in patients with cervical spine instability and it might be an alternative to videolaryngoscope and FOB in difficult airway.[3,4] The external video display of SOS is more reliable and convenient for observation and exposure of pharynx, larynx, and glottis. Therefore, SOS is simpler and easier to operate, meanwhile its learning curve is short. After seven attempts of tracheal intubation, new operators might master the skills of SOS.[5] But SOS is only suitable for partial difficult airway.

In some cases, specific devices have been used to assist anesthetists during FOB intubation for a clear view. I designed a forceps for a convenient and easy usage on FOB. The forceps is rigid and J-shape device with a profile looking like SOS (Figs. 1 and 2). FOB can be inserted into the forceps because it is hollow with opening-closing design. Thus, the forceps and FOB can function as a solid unit. By the external monitor of FOB, the unit is developed into another kind of SOS. By this procedure, flexible FOB is changed to rigid endoscope that has a number of distinct advantages for orotracheal intubation.[1] The endotracheal tube is preloaded and fixed at the root of FOB. The detailed manipulation method is the same as SOS. After obtaining optimal glottis view, FOB is advanced to bypass glottis. Thus, the forceps is opened and withdrawn from mouth to release FOB. Keeping FOB in trachea as a guide, endotracheal tube is inserted forward into trachea.