Complexity in extending a tracheal tube through this fibre optic bronchoscope.

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Abstract

In patients with problematic tracheas, fibreoptic tracheal intubation is a beneficial approach. However, there are two big drawbacks to this method. The initial step is to locate the glottis and place a fiberscope into the trachea. The soft palate, tongue, and epiglottis all move closer to the posterior pharyngeal wall when general anaesthesia is administered, leaving limited room in the oropharynx for manipulating the tip of the fibrescope to locate the glottis.

Keywords: Fibre optic bronchoscope, Oesophagus.

Introduction

The insertion of a tube over the fiberscope into the trachea is the second challenge. Despite successful insertion of a fiberscope into the trachea, there have been incidents of unsuccessful tracheal intubation. There have also been thorough publications that explore successful approaches to teach fibrescopy. In contrast, there have been no extensive textbooks or studies on the second difficulty that of extending a tracheal tube over a fibre scope [1].

Difficult intubation with a fibrescope causes problems

Fibreoptic intubation difficulty is linked to two key issues. The first of these is apnoea. Fibreoptic intubation takes significantly longer than intubation with a laryngoscope to intubate the trachea, and consequently the duration of apnoea [2]. As a result, stress reactions including an increase in heart rate and blood pressure are more likely to occur during fibreoptic intubation. If apnoea persists for an extended period of time, the patient may become hypoxic. It's especially awkward if after successfully inserting a fibrescope into the trachea despite substantial effort in a patient with a difficult airway. It's still difficult to advance a tube over the scope into the trachea, and the arterial haemoglobin oxygen saturation begins to drop. Attempts to introduce a fibrescope into the trachea and advance a tube over the scope many times increase the risk of harm to the larynx and adjacent tissues, which can result in bleeding or oedema. Even when the patient is not anaesthetized, total airway obstruction can occur during fibreoptic intubation attempts. Something often overlooked is that the tip of a tracheal tube cannot be seen directly via a fibrescope during insertion. As a result, advancing a tracheal tube over a fibrescope should be done with extreme caution, especially in individuals with pathological alterations to the glottis or adjacent tissues. Repeated attempts to put a tube over a successfully inserted fibrescope into the trachea resulted in significant haemorrhage, necessitating an emergency surgical airway in a patient with laryngeal papillomatosis [3].

Using only a fiberscope, overall incidence of problematic intubation is higher

Intubation through the nose can be just as challenging as intubation through the mouth. Although discrepancies in the definition of difficulty between studies may have contributed to the disparities in incidence, other factors such as the size of a fibrescope or the kind and size of a tracheal tube may also have had a role [4].

Intubation besides a fibrescope might be challenging for a reasons

The most common cause of difficulties advancing a tube over a fiberscope is divergence of the tube's path from the fiberscope's course due to the gap between the two towards the epiglottis, arytenoid cartilage, pyriform fossae, or oesophagus [5]. There has been no conclusive evidence to establish which anatomical region is the primary source of tracheal tube occlusion. Nonetheless, there are a variety of viewpoints based on sparse facts. They also looked at the location of obstruction in patients and came up with the same result. The reasons for the differences across studies are unclear, but one hypothesis is that the observation methods differed: in the first two reports, a laryngoscope was used to assess the site of obstruction, whereas in the last research, a fibrescope was introduced nasally into the pharynx. The use of a laryngoscope may have changed the anatomy and influenced the outcome [6].

Conclusion

Although the causes of difficulty in tracheal intubation with a fibrescope and the inefficacy of each remedy have yet to be fully understood, it is critical to select an appropriate

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fibrescope and tracheal tube, as well as to perform proper manoeuvres, to make fibreoptic intubation safer.

References

1. Kazuyoshi A, Ichiro T, Etsuko N, et al. Jaw thrust maneuver for endotracheal intubation using a fiberoptic stylet. Anesth Analg. 2000;90(6):1457-58.
2. Asai T. Use of the laryngeal mask for fibrescope-aided tracheal intubation in an awake patient with deviated larynx. Acta Anaesthesiol Scand. 1994;38(6):615-6.
3. Asai T, Latto IP, Vaughan RS. The distance between the grille of the laryngeal mask airway and the vocal cords. Is conventional intubation through the laryngeal mask safe?. Anaesthesia. 1993;48(8):667-9.
4. Ayoub CM, Lteif AM, Rizk MS, et al. Facilitation of passing the endotracheal tube using a Cook airway exchange catheter. Anesthesiol. 2002;96(6):1517-8.
5. Baraka A, Rizk M, Muallem M, et al. Posterior-beveled vs lateral-beveled tracheal tube for fibreoptic intubation. Can J Anaesth. 2002;49(8):889-90.
6. Berman RA. A method for blind oral intubation of the trachea or esophagus. Anesth Analg. 1977;56(6):866-7.

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