



Guidance methods during nasal endotracheal intubation

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The author is of great interest in the paper titled “*Comparison of the Nasal Cavity Guidance Methods' Effects during Nasotracheal Intubation Using a Preformed Nasotracheal Tube: A Prospective Randomized Controlled Trial*” (1). This study well summarized the new information about the process of nasal endotracheal intubation. I have some concerns, which I want to discuss.

Nasal endotracheal intubation is one of the important techniques to manage the airway in anesthesia and critical care. The advantage is that it can be fixed easily and safely, but the size of the tube is reduced and inserted into the nasal cavity blindly (1,2). It facilitates a better operation vision; thus, it is a more comfortable method for both anesthesiologists and surgeons especially in the oral, pharyngeal, dental, and maxillofacial operations (3-5). Various drugs and instruments with skilled maneuvers are required in the process of nasal endotracheal intubation. And in techniques, it is safer as it helps avoid possible complications embedded in the blind insertion technique, mainly from the endotracheal tube to the nasal cavity and nasopharynx (2-5).

The process of nasal endotracheal intubation can be explained by dividing it into three phases: the first is insertion through the nose into the pharynx, the second is laryngoscope-guided passage into the glottic inlet, and the third phase is laryngoscope-guided passage into the trachea with or without Magill's forceps depend on the patient's condition. The first important process is the selection of

appropriate size endotracheal tube for the patient, and application of lubricant at the tip of endotracheal tube and site in preparation for insertion (2)

The endotracheal tube was inserted slowly along the bottom of the nasal cavity by pushing it down to the nasopharynx and oropharynx through the selected nostril and treated with lubricant, local anesthesia and vasoconstrictor. While avoiding excessive force, the endotracheal tube should be inserted by rotating it slowly (2-5). While advancing from the nasal cavity to the oropharynx during the intubation process, resistance may be felt upon passing through the nasopharyngeal junctional space and the posterior nasopharynx. In this case, the endotracheal tube should be inserted while rotating or extending the patient's neck (2,3). However, the tube insertion was easy and safe without neck extension because of the guide tube or catheter in this study.

During the first phase, many anesthesiologists try blind insertion techniques, but use assistive devices for easier insertion with less trauma and complication as follows. Fiberoptic endoscopy is recommended as the safest tool to apply, it is not applied due to some problems such as thickness, skilled hand, and cost burden of instrument. Guidewire (e.g., esophageal bougie, lighted stylet) is the second choice, but it must have the length and flexibility to pass the nasal cavity and access the oropharyngeal cavity, just above of the vocal cord. And you will need to be able to maintain an aseptic state to prevent infection. Some have

introduced a method for safe and atraumatic insertion of nasotracheal intubation by applying a nasogastric tube and a suction catheter that are easily available in the operation room (1,2). These are relatively effective and atraumatic methods, but you will need to check the length and size of the nasotracheal tube and guidewire before application to ensure easy and smooth passage. And it should be possible to prevent endotracheal contamination by maintaining aseptic conditions to the extent possible. These are very good strategies for prevention of trauma and complication, less economic burden and easy preparation in operation room for safe and smooth nasal endotracheal intubation.

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aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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