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A Two-Person Intubation Maneuver for Dental Protection

Seokyung Shin* and Yang-Sik Shin

Department of Anesthesiology and Pain Medicine, Yonsei University College of Medicine, Seoul, Korea

To the Editor

Letter

Perioperative dental injury is a well-recognized and the most common of all complaints related to anesthesia. The majority of these dental injuries occur during tracheal intubation and the upper central incisors are known to be most at risk of dental injury [1-3]. In patients who are at increased risk of dental injury during tracheal intubation, numerous efforts have been made to reduce damage such as the employment of various techniques (blind nasal intubation, LMA or COPA*, light intubating stylets, fiberoptic intubation, paraglossal technique), modifications of laryngoscope blades and employment of other devices designed to absorb or distribute forces on the teeth over larger areas [2]. The purpose of many of these methods is not to use a laryngoscope at all or to reduce contact with incisors, which reflects the importance of avoiding friction or contact of the upper teeth with a hard blade during rigid laryngoscopy. However, despite the proven effectiveness of these methods, their main disadvantage is their inconvenience because most require the preparation of an additional instrument.



Figure 1

We would like to introduce a two-person intubation maneuver we have developed in order to decrease dental trauma during intubation in patients at high risk of damage. This technique is simple and quick, and does not require any additional equipment. After induction of general anesthesia, an assistant inserts his/her index finger at the right side of the patient's mouth and applies pressure on the hard palate in the cephalad direction and creates an opening (Figure 1a). Then the dedicated anesthesiologist inserts a Macintosh laryngoscope with care not to use the upper teeth as a fulcrum (Figure 1b) and inserts the endotracheal tube (Figure 1c). This maneuver effectively reduces the contact of the upper teeth with the laryngoscope blade by increasing the distance between the blade and the upper central incisors.

This easily applicable, cost-effective method has been successfully used in many cases at our institution. Limitations of this maneuver are that there may be less room for laryngoscopic manipulation and tracheal tube insertion within the oral cavity due to the assistant's finger, and the possible difficulty of application in patients with poor dentition of the right maxillary molars. In patients with poor dentition along with unfavorable airway anatomy, the combination of a modified laryngoscope blade such as the Belscope or McCoy blade with the twoperson maneuver may further reduce the risk of dental injury.

Although dental injury can be prevented by preparing the necessary equipment, it may not be always available as needed. We feel it important for an experienced anesthesiologist to be able to manage difficult situations even without additional equipment and that sometimes the simplest maneuvers enable safer practice. It is our impression that dental damage can be significantly reduced with this simple and readily applicable maneuver without the inconvenience of the preparation of additional instruments/devices or increase in medical expenses.

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*Corresponding author: Seokyung Shin, Department of Anesthesiology and Pain Medicine, Yonsei University College of Medicine, 50 Yonsei-ro, Seodaemun-gu, Seoul, Korea, Tel: 82-2-2227-4624; Fax: 82-2-2227-7897; E-mail: skshin@yuhs.ac

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