

A less-traumatic way of light-guided intubation with Parker Flex-Tip tube

Masayuki Ozaki, Koji Murashima, and Takero Fukutome
Department of Anesthesia, Kyushu Koseinenkin Hospital, 1-8-1
Kishinoura, Yahatanishi-ku, Kitakyushu 806-8501, Japan

To the editor: Tracheal intubation with a lightwand stylet such as Trachlight (Laerdal Medical, Armonk, NY, USA) has been adopted not only in the management of the difficult airway but also in routine tracheal intubation in general anesthesia. However, the procedure of light-guided intubation is not conducted under visual assistance, and thus injury to the tissue of the larynx can occur. Aoyama et al. [1] fiberoptically observed the advancement of the tracheal tube during light-guided intubation in 20 patients prospectively. In 2 cases, the tube pushed the epiglottis into the laryngeal inlet during tube advancement. Furthermore, during procedures of fiberoptic intubation, bougie-guided intubation, and intubation with the intubating laryngeal mask, difficulty in advancing the tracheal tube through the vocal cords may be a problem [2,3]. The tube can impinge against the arytenoid cartilages, the epiglottis, or the subglottic shelf [2]. Difficulty in glottic passage necessitates multiple attempts or greater force, which may lead to trauma of the laryngeal tissue.

A newly designed tube with a hemispherical bevel, the Parker Flex-Tip tube (Parker Medical, Englewood, CO, USA), is claimed to enable intubation to be smooth and atraumatic compared to a conventional tube with a rigid bevel. The distal tip of the Parker Flex-Tip tube is symmetrical and positioned toward the center of its distal lumen, allowing gentle skiing along the surface tissue of the throat and smooth

glottic passage. It has been reported that the Parker Flex-Tip tube provides easier glottic passage than the conventional tube during introducer-guided intubation [4].

We fiberoptically checked the damage to the larynx in 20 patients who underwent light-guided intubation using Trachlight and Parker Flex-Tip tube. None of the patients had visible complications such as bleeding, redness, or malposition of the laryngeal tissue.

The Parker Flex-Tip tube, which is designed for smooth and atraumatic intubation, may be an advantage to light-guided intubation that requires advancement of the tracheal tube without visual assistance.

References

1. Aoyama K, Takenaka I, Nagaoka E, Kadoya T, Sata T, Shigematsu A (2001) Potential damage to the larynx associated with light-guided intubation: a case and series of fiberoptic examinations. *Anesthesiology* 94:165-167
2. Kirstin M, Mark TK, Gerard SK, Barry AH (2002) The use of the intubating laryngeal mask endotracheal tube with intubating devices. *Anesth Analg* 95:249-250
3. Murashima K, Fukutome T, Brimacombe J (1999) A comparison of two silicone-reinforced tracheal tubes with different bevels for use with the intubating laryngeal mask. *Anaesthesia* 54:1198-1200
4. Kristensen MS (2003) The Parker Flex-Tip Tube versus a standard tube for fiberoptic orotracheal intubation: a randomized double-blind study. *Anesthesiology* 98:354-358

Address correspondence to: M. Ozaki
Department of Anesthesiology, University of Occupational and Environmental Health, 1-1 Iseigaoka, Yahatanishi-ku, Kitakyushu 807-8555, Japan
Received: April 17, 2004 / Accepted: December 1, 2004