44606 - PATIENT-CONTROLLED ORAL AIRWAY PLACEMENT

May-Sann Yee, University of Alberta, Edmonton, BC, Canada;

Ron Damant, University of Alberta;

Ban Tsui, University of Alberta;

INTRODUCTION: Successful fiberoptic intubation of awake difficult airway patients requires adequate preparation.⁽¹⁾ Besides necessary equipment and personnel, psychological preparation of the patient and optimized airway topicalization are important for comfortable and successful intubations. Thoughts of an impending awake intubation can be very stressful for a patient, especially those whom have a pronounced gag reflex. Placing an oral airway may reduce discomfort during the intubation, serve as a conduit for the ET tube, and allow precise delivery of local anesthetic. To give the patient a sense of control and reduce chances of the airway insertion itself inducing gagging, we asked patients to place their own oral airways, i.e. patient-controlled, and examined the feasibility of this practice.

METHODS: REB approval and informed consent from elective bronchoscopy patients or difficult airway patients who needed fiberoptic intubation were obtained. Prior to procedural sedation and after 4% lidocaine gargle, patients received standardized instructions for slow, controlled placement of the oral intubating airway (Berman, USA). A thin layer (1-2 ml) of 5% lidocaine ointment was applied to the Berman airway distally. Airway exam, number of attempts, timing and success of placement (i.e. airway placement allowing fiberoptic bronchoscope insertion), sedative medication use, and degree of airway visualization were recorded. Frequency or means $\pm$ 95% confidence interval (CI) were calculated. Both bronchoscopists and patients completed survey questions after each procedure.

RESULTS: Nineteen bronchoscopy and 3 difficult airway patients were recruited. Twenty-one of 22 patients (18/19 bronchoscopy; 3/3 difficult airway) successfully placed the oral airway. Mean placement time and number of attempts were 92 sec (95% CI = 55-130) and 2.1 times (95% CI = 1.5-2.7). Survey results are shown in Figure.

DISCUSSION: This study demonstrates the feasibility of 'patient-controlled' oral airway placement in preparation for fiberoptic bronchoscopy or intubation. This method offers patients some psychological control over the situation and may help to reduce stress, anxiety and gagging accompanying this invasive procedure. Gag reflexes can be modified at high brain centers and treatments include relaxation, hypnotherapy, acupuncture, "hypnopuncture", among other psychological means.^{2,3} Accordingly, patient-controlled (rather than physician-assisted) airway placement, may increase patient confidence and be an easy and reliable way to reduce gagging in this population. Additional benefits of airway insertion are efficient lower airway topicalization and potentially improved vocal cord visualization for the bronchoscopist

REFERENCES: 1. Thor Surg Clin 2005; 15: 39-53. 2. J Prosthet Dent 2004; 91: 459-67. 3. Int J Clin Exp Hypn 2005; 53: 74-86.

Survey Results