

Difficult Airway Assessment: Bite Your Lip!

Many clinical assessment tools have been proposed for predicting difficult intubation, but none has emerged as a definitive test. These investigators in Iran compared a new test, the upper lip bite test (ULBT), against the modified Mallampati test (MMT) in 300 consecutive elective anesthesia patients aged ≥ 16 years without edentulousness, limitations of mouth opening or neck mobility, and laryngeal masses.

The ULBT is performed by asking the patient to bite his or her upper lip. The test is scored as class I if the lower teeth can bite the upper lip above the vermilion border, class II if below the border, and class III if the upper lip cannot be bitten. The MMT was scored as class I (full view of oral pharynx) to class IV (no view of oral pharynx). At laryngoscopy, 17 patients (5.7%) were difficult to intubate, defined as a Cormack-Lehane class III (only epiglottis visible) or IV (epiglottis not visible) view of the larynx. Using ULBT class III and MMT class III or IV as predictors of difficult intubation, the respective sensitivities, specificities, positive predictive values, and negative predictive values were 77%, 89%, 29%, and 98% versus 82%, 67%, 13%, and 98%. The authors conclude that the higher specificity of the ULBT makes it more reliable than the MMT.

Comment: Inter-rater reliability for this new test is unknown, and sensitivity is much more important than specificity for a difficult airway test used in the emergency department. If we think an intubation will be difficult and it isn't, no harm is done, but if we fail to identify a difficult intubation before administering paralytic agents, serious consequences could ensue. Let's wait for more data.

— *Ron M. Walls, MD, FRCPC, FACEP*

Published in Journal Watch Emergency Medicine March 12, 2003

CITATION(S):

Khan ZH et al. *A comparison of the upper lip bite test (a simple new technique) with modified Mallampati classification in predicting difficulty in endotracheal intubation: A prospective blinded study.* *Anesth Analg* 2003 Feb; 96:595-9.