Images In Anesthesia

The art of maintaining a patent airway: an old problem – new evidence

FIGURE Management of the potentially difficult airway; Panel A: sedated patient with complete obstruction (inlet) of the glottis entrance by the tongue – no support given to the patient; Panel B: sedated patient with open airway (inlet), supported by chin lift; Panel C: sedated patient with open airway (inlet), supported by jaw thrust; and Panel D: sedated patient with open airway (inlet), supported by a Guedel airway (mayo tube).

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Soft tissue collapse is a common cause of upper airway obstruction.¹ Most often, airway obstruction is caused by a reduction of the space between the wall of the pharynx and the base of the tongue, such as may occur with obstructive sleep apnea, sedation, or general anesthesia.² The most effective means to eliminate soft tissue-related airway obstruction involves extension of the head, with or without anterior displacement of the mandible (head tilt-jaw thrust method), and/or insertion of a nasopharyngeal or oropharyngeal (e.g., Guedel) airway. We herein present direct imaging evidence (using simultaneous, external and internal airway videotaping) which demonstrates the effectiveness of these maneuvers in relieving an airway obstruction in a sedated patient, who underwent clinical evaluation for obstructive sleep apnea. Patient approval for publication was obtained.

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