patient with a suspected difficult airway, we suggest combining preoxygenation with apneic diffusion oxygenation. This can be easily achieved by pharyngeal insufflation of oxygen throughout the period of apnea. During apneic diffusion oxygenation, oxygen will diffuse from the lung to the pulmonary capillaries according to its concentration gradient. The oxygen molecules can diffuse from the pharynx into the alveoli, even in the "cannot-intubate, cannot-ventilate" situation, in which the airway may not be completely patent. The combination of preoxygenation and apneic diffusion oxygenation can be particularly advantageous in patients with a suspected difficult airway and in patients with a decreased safety margin secondary to decreased functional residual capacity (FRC) or increased oxygen consumption, or both, such as small children, pregnant women, obese persons, and patients with respiratory distress syndrome.

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References

1. Benumof JL, Dagg R, Benumof R. Critical hemoglobin desaturation will occur before return to an unparalyzed state following 1 mg/kg intravenous succinylcholine. Anesthesiology 1997; 87:979–82

(Accepted for publication September 2, 1998.)

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References

4. Benumof JL. Succinylcholine duration on critical hemoglobin desaturation in the healthy adult (reply to letter). Anesthesiology 1998; 88:1688

(Accepted for publication September 2, 1998.)