Success of the LMA CTrach with C-Spine Immobilization

Cervical spine immobilization did not significantly increase time to ventilation or time to glottic visualization with the CTrach.

The LMA CTrach is an intubating form of the Laryngeal Mask Airway that has an integrated fiber-optic channel and a liquid crystal display (LCD) screen. The view afforded by the LCD screen is meant to increase intubation success by permitting direct vision of the glottis. However, application of manual in-line cervical spine immobilization can make LMA insertion more difficult. In a randomized crossover trial, researchers compared times to glottic visualization and ventilation during insertion of the LMA CTrach with and without C-spine immobilization in 50 healthy adult patients without C-spine pathology. Each patient was intubated only once.

Median times to ventilation were 22 seconds with immobilization and 19 seconds without. Median times to glottic visualization were 42 and 39 seconds, respectively. The authors conclude that C-spine immobilization does not significantly affect use of the LMA CTrach.

Comment: This study might help to better define the role of the LMA CTrach in trauma patients. However, the study was conducted in patients without C-spine pathology, and the authors did not compare the success of intubation with and without C-spine immobilization. Nevertheless, in circumstances in which the LMA CTrach is being considered for primary or rescue airway management in trauma patients, knowing that manual C-spine immobilization does not increase the time required to achieve glottic visualization and, especially, ventilation, is reassuring.

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