Be Ready to Extend the Incision Beyond Landmarks When Performing a Crich!

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Compared with ultrasound, three classic landmark techniques were inaccurate for identification of the cricothyroid membrane.

Cricothyrotomy is a rare procedure, and it is becoming more so given the increasing adoption of video laryngoscopy. However, it remains an essential skill, not only as a rescue procedure for a failed airway, but also as a planned — and prepared for — option when intubating patients with predictably difficult airways. While there are a number of landmark techniques for identification of the cricothyroid membrane, their accuracy is unknown. This study compared three techniques (general palpation, four-finger, and neck crease) to each other and to ultrasound (the reference standard).

Each of 50 adult emergency department patients awaiting further care was assessed by a convenience sample of three emergency physicians who were randomly assigned to one of the three techniques. An expert then used ultrasound to identify the cricothyroid membrane in each patient. Compared to ultrasound, the general palpation, neck crease, and four-finger techniques were accurate 62%, 50%, and 46% of the time, respectively.

Comment: These results highlight the inaccuracy of landmark techniques for identifying the cricothyroid membrane. Ideally, point-of-care ultrasound would be readily available (and providers would be sufficiently facile in its use) for preparation for surgical airways — a lofty goal. Until then, be prepared to extend the initial vertical incision.

Citation(s):

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