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Learning Curves of the Airtraq and the Macintosh Laryngoscopes for Tracheal Intubation by Novice Laryngoscopists: A Clinical Study

Anesthesia & Analgesia January 2011 • Volume 112 • Number 1

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BACKGROUND: Several studies compared the use of Airtraq and Macintosh laryngoscopes in simulated intubation scenarios on manikins. The authors evaluated learning and performance of tracheal intubation by novice laryngoscopists using the Airtraq or Macintosh laryngoscopes in a randomized controlled clinical trial.

METHODS: **108 consecutive patients** scheduled for surgical procedures requiring tracheal intubation were enrolled. Patients were randomly allocated to undergo tracheal intubation using a Macintosh (n 54) or an Airtraq (n 54) laryngoscope. Tracheal intubation was performed by first-year residents who had **no prior experience with the use of either laryngoscope**. Primary end points were duration of tracheal intubation and intubation difficulty scale score for both devices.

RESULTS: Eighteen residents participated in the protocol; 9 were allocated to each study group. Each participant performed at least 6 tracheal intubations with the same device. **The authors observed a more rapid skill acquisition with the Airtraq than with the Macintosh laryngoscope**, as demonstrated by the shorter duration of intubation with the Airtraq laryngoscope. Data analysis with the Student t test revealed **a significant difference between the groups** (P 0.001).

CONCLUSION: **The Airtraq laryngoscope facilitates a more rapid learning curve compared with the Macintosh laryngoscope** when used in a clinical setting by novice laryngoscopists. **The Airtraq laryngoscope was judged easier to use by novice users.**