

Another Showdown: Straight vs. Curved Blades for Intubation

The advantages of straight versus curved blades for endotracheal intubation have been endlessly debated, but lacking definitive evidence, most authors consider operator preference as the most important factor in blade selection. In this prospective, randomized study, investigators compared the laryngoscopic view and ease of intubation with the Macintosh (standard curved blade), the McCoy (curved blade with levering tip), the Miller (standard straight blade), the Belscope (30° angulated blade), and the Lee Fiberview (straight blade with viewfinder) laryngoscopes.

Five hundred elective surgery patients without histories of difficult intubation underwent induction of anesthesia, neuromuscular blockade, and intubation with a randomly preassigned blade. One experienced anesthesiologist performed all the intubations. The laryngoscopic view was classified according to the Cormack and Lehane grading system, and the ease of intubation with the assigned blade was graded on a 4-point scale (1: easy, 2: increased anterior lifting force and assistance required to pull the right corner of the mouth laterally to augment space, 3: multiple attempts and a curved stylet required, and 4: failure). The 5 patient groups were similar as to predicted difficulty of intubation (Mallampati score, neck mobility, mandibular space assessment) and in sex, age, weight, and height. Laryngoscopic views with the Belscope and Miller blades were similar and were better than with the other types of blades. Ease of intubation was best with the McCoy and Macintosh blades.

Comment: These results cannot be generalized to emergency department practice because only one anesthesiologist participated and no patients underwent rapid sequence intubation. The finding that the straight blades provided a superior laryngoscopic view is important, as laryngoscopic view correlates highly with intubation success. The finding that intubation was easier with the curved blades may be an artifact of the unique scoring system used in this study.

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