



Initial Experience with the King Vision® Videolaryngoscope: Emphasis on Human Factors

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INTRODUCTION

King Systems (Noblesville, IN) recently introduced a relatively inexpensive, self-contained, compact videolaryngoscope. This device employs single use, steeply curved blades, with an optional guiding channel version. This prospective, observational study evaluated the utility, efficacy, and reliability of both versions of the King Vision®, with attention to human factors.

METHODS

After IRB approval and informed consent, 27 adult patients undergoing elective GETA were enrolled. All investigators received simulation training prior to using the King Vision® in subjects. Blade versions were chosen at random or based on availability. Because of the steeply curved design of the blade, GlideRite ET tubes and GlideScope rigid stylets (Verathon, Bothell, WA) were employed for all intubations using the non-channeled version.



RESULTS

Average subject weight was 81.3 kg (range 45-131). Channeled blades were used in 13 subjects, all of whom, except one, were intubated successfully. In this patient, the tube could not be placed despite adequate visualization with the unchanneled blade. Subsequent DL was successful. Mean intubation time was 21.9 seconds, with an average of 1.2 attempts. Average intubation and blade insertion difficulty using a 1-10 VAS were 1.2 and 1.5. One operator dislodged the video screen from the blade, requiring that the screen be turned off and on. There were no complications or statistically significant differences between the blade styles.

DISCUSSION

The King Vision® is easy to use and effective. With regard to human factors, the guiding channel may, in theory, simplify ETT delivery. A screen locking mechanism should be added. Other potential negatives include the fact that the miniaturized screen image necessitates the use of near field vision, increasing physical task complexity. Further study is warranted.