

Tuesday, June 6th: CAEP Poster Presentations

A comparison of the bougie with a rigid fiberoptic scope: Does the Levitan FPS Scope® perform better than the bougie in a simulated difficult airway?

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Introduction: In this study we compared the use of a relatively new intubating stylet (FPS Levitan®fiberscope) with the bougie in a simulated difficult airway setting. **Methods:** A total of 103 participants were recruited for our study. Our study population included paramedics, respiratory therapists, medical residents, and medical students. Participants were excluded from the study if they had prior experience with the fiberscope. Following a 20 minute video participants practiced with feedback during 6 intubations with each tool. Following this, participants were required to attempt intubation using both instruments on two manikins with differing but fixed laryngoscopic views where only the epiglottis is seen (Cormack and Lehane grades 3A and 3B). Our two primary outcome measures were total intubation time and success rate. **Results:** Intubation on the 3A airway was successful 103 times (100%) using the bougie and 98 times (95%) using the fiberscope. The difference between these outcomes was not statistically significant. Intubation of the 3B airway was successful only 9 times (9%) using the bougie and 101 times (98%) using the fiberscope. This difference was statistically significant ($p > 0.0001$). The mean time to intubation of the 3A airway was 31 seconds for both methods. The mean times to intubation of the 3B airway were 114 and 33 seconds for the bougie and the fiberscope respectively. Eight participants required two attempts at intubating the 3A airway using the fiberscope while only one participant required two attempts to intubate the 3A manikin using the bougie. Eleven participants required two attempts to intubate the 3B manikin with the fiberscope. **Conclusions:** We conclude that the Levitan stylet fiberscope used as an adjunct to direct laryngoscopy performed as well or better than the bougie in simulated difficult airways. Key words: airway, intubation, bougie, fiberscope