

## **Utility of the Shikani Seeing Stylet for Endotracheal Intubation**

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### **ABSTRACT**

**Objectives:** The Shikani seeing stylet is a new device for endotracheal intubation consisting of a high-resolution (30,000-pixel) endoscope within a bendable steel sheath (stylet) that is inserted through an endotracheal tube to allow placement under direct vision. The purpose of this study was to determine the utility of the Shikani seeing stylet versus a traditional laryngoscope. **Methods:** Design: Experimental. Subjects: 17 emergency medicine residents with experience with a traditional laryngoscope but no experience with intubation using the Shikani seeing stylet. Observations: Each resident was given a one-page pictorial instruction sheet in the use of the Shikani seeing stylet. The residents received no tactile training time with the device, although they did observe one endotracheal intubation with the device by the study author on an airway mannequin. Each resident then performed three endotracheal intubations on the mannequin using a traditional laryngoscope (choosing either a Macintosh or a Miller blade) and then three intubations using the Shikani seeing stylet. The time for each attempt was recorded and the three were averaged for each resident for each technique. The mean times for the Shikani seeing stylet were compared to the control method using a traditional laryngoscope using Dunnett's method with alpha set at 0.05 to determine statistical significance. **Results:** The mean time for endotracheal intubation using the Shikani seeing stylet was  $23.6 \pm 6.0$  seconds compared to the laryngoscope time of  $21.1 \pm 7.7$  seconds. There was no statistically significant difference between the two techniques. **Conclusion:** The Shikani seeing stylet is a new airway management device that in this model facilitated swift endotracheal intubation comparable to the traditional laryngoscope without the need for tactile training. These initial positive results should be further studied in other models such as a difficult airway simulator, cadavers, or emergency department patients.