Direct Laryngoscope Is Needed for Intubation with Levitan Optical Stylet

Despite a single experienced operator's success without a direct laryngoscope in this study, the stylet is best used with a direct laryngoscope.

The Levitan Optical Stylet is a semirigid intubating fiber-optic stylet designed to be used with a direct laryngoscope. However, the Levitan Optical Stylet can be modified by bending it into an S-shape, similar to that of the Shikani Optical Stylet, allowing intubation without use of a direct laryngoscope. Researchers retrospectively analyzed 301 consecutive intubations in elective and emergency surgical patients that were performed or supervised by a single experienced operator using the modified Levitan Optical Stylet. The device was not used in patients who were predicted to require tracheal tubes >27 cm or nasal intubation.

All but one patient (99.7%) were successfully intubated; the patient with failed intubation had a history of difficult laryngoscopy and required fiber-optic nasal intubation. Mean time to intubation (time from when the device was picked up to when it was returned to the table) was 23 seconds. Intubation was considered difficult in only 5 of 49 patients with predicted difficult laryngoscopy (previous difficult laryngoscopy in 1, severely limited neck extension in 4, Mallampati class III or IV airways or submental fat pads in 44). Traumatic intubation occurred in three patients (bloody secretions in 1, lip lacerations in 2; none required treatment.

Comment: These results were obtained by a single operator, and it is unlikely that less-experienced users would be able to reshape and use the Levitan Optical Stylet with similar success. We recommend using the Levitan Optical Stylet only as an adjunct to direct laryngoscopy.

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