Examining the success rate of first attempt Video Laryngoscope -assisted tracheal intubation with a hyperangulated blade and a bougie.

Purpose

The approach to airway management has undergone a dramatic transformation since the advent of video laryngoscopy (VL). Intubation using a video laryngoscope has been shown to improve laryngeal visualization compared with direct laryngoscopy and may be associated with improved first-attempt success, especially in difficult airway.

This study examines the first attempt success rate of tracheal intubation using a C-MAC video laryngoscope with a hyper angulated blade and the assistance of a bougie. As no similar studies were published in the past, we proposed this as a pilot study conducted on forty-nine patients.

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Methods

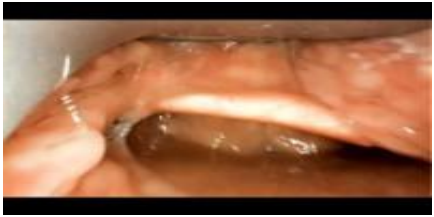
Patients 18-80 years old from all surgical specialties.

49 out of 65 met the inclusion criteria

Exclusion criteria:
Age: <16 years old
Obstruction Masses
ASA E - Risk of Aspiration

The technique needed for the hyperangulated blade differs markedly from that of a standard geometry blade with Direct Laryngoscopy or Video Laryngoscopy.

- Pure video with no direct view.
- The angulation of the blade and the camera's position also change the view angulation, so what appears to be directly in front of us on the VL screen is actually above.
- Mechanical problems resolve by taking a regular bougie and giving it an upward deflection similar to the VL blade angulation, instead of rigid stylet



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Results

49/49 were completed successfully with the first attempt

Mean Intubation Time **70.4 s**

Conclusion

Using a VL-assisted hyper angulated blade with a bougie as a first-intention device for tracheal intubation in the operating room was associated with a significant increase in the proportion of successful first-attempt intubations. The technique can be encouraged more in the operating room as it is proven to have a faster learning curve relative to direct laryngoscopy independent of status as a novice or experienced intubator with fewer complications due to increased number of intubation attempts.

References

Driver, B.E. et al. (2020) Comparing emergency department first-attempt intubation success with standard-geometry and hyperangulated video laryngoscopes,

Oxenham, O. et al. (2022) Standard and flexible tip bougie for tracheal intubation using a non-channelled hyperangulated video laryngoscope: A randomised comparison

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Thank you!