

Title

Comparison of the Mallampati Classification in Sitting and Supine Position to Predict Difficult Tracheal Intubation: A Prospective Observational Cohort Study.

Citation

Hanouz JL, Bonnet V, Buléon C, Simonet T, Radenac D, Zamparini G, Fischer MO, Gérard JL. Comparison of the Mallampati Classification in Sitting and Supine Position to Predict Difficult Tracheal Intubation: A Prospective Observational Cohort Study. *Anesth Analg*. 2017 May 19. doi: 10.1213/ANE.0000000000002108. [Epub ahead of print]

Pubmed link

<https://www.ncbi.nlm.nih.gov.myaccess.library.utoronto.ca/pubmed/28537983>

Summary

This single center, prospective observational study aimed to compare the diagnostic accuracy of the Mallampati score in supine and sitting positions for the prediction of difficult intubation in a large cohort of adult surgical patients. A total of 3036 patients were included in the diagnostic performance analysis. Of these, 157 (5.1%) had difficult intubation. The area under the receiver operating characteristic (ROC) curve for the Mallampati score in the supine position (0.82 [0.78-0.84]) was greater than that observed for the Mallampati in the sitting position (0.70 [0.66-0.75]; $p < 0.001$). On the basis of these findings, the Authors concluded that the Mallampati score performed in the supine position is possibly superior to that performed in the sitting position for predicting difficult intubation in adults.

Limitations

The study has some limitations that merit consideration, and that were well described by the Authors. First, it did not include pediatric nor obstetric patients, and was limited to elective cases. Patients scheduled for fiberoptic intubation, and therefore those in whom history or clinical examination suggested a high probability of difficult airway, were excluded. Hence, the results cannot be generalized to these populations. Furthermore, generalizability is limited by a single center design. Also, inter-observer variability data were not collected, although previous studies showed this is usually not an issue in Mallampati score assessment.

Potential for Practice Change

This study shows that the Mallampati score in the supine position could improve diagnostic performance for predicting difficult intubation compared to the Mallampati score in the sitting position, as it was originally defined. Implementing this approach in daily clinical practice, in addition to all the current components of a complete airway exam, may help us better identify patient at risk for difficult intubation. Future multicenter studies will be important to validate the findings by Hanouz and colleagues.