MOANS and LEMON scores: are they useful in our routine airway assessment?

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Background and Goal of Study

- There is a growing concern about discussing and planning strategies for airway management. It is primordial to improve our capacity to predict difficulty.
- Obese population frequently presents challenges to both intubation and ventilation. Multiple scores and assessment tools have been described in the literature.¹⁻³
- The aim of this study was to assess whether MOANS and LEMON scores can predict respectively difficult mask ventilation and intubation in obese patients.

Materials and Methods

- Hospital Ethics Committee approval;
 - Prospective observational study;
 - All obese patients submitted to non-urgent bariatric procedures at Centro Hospitalar do Porto, between June and November 2015;
- Demographic data Face mask ventilation (FMV) difficulty Laryngoscopy grade MOANS e LEMON
- Statistical analysis: Fisher's exact test ($p < 0.05$).

Results and Discussion

- 50 patients included; 90% female ($n=49$)
- Mean age: 46 years old [21 -81];
- Mean BMI: 45 kg/m² [34 – 57]
- FMV attempted in 38 patients → difficult in 22% ($n=11$)
- Laryngoscopy grade ≥ 2 in 38% ($n=19$)
- Mean MOANS score: 2 +/- 0,7 (80% with MOANS ≥ 2)
- Mean LEMON score: 2 +/- 1,5
- LEMON score ≥ 5 correlated with more difficult intubation (grade ≥ 2 ; $p=0,0494$)
- No significant statistical correlation between:
 - LEMON and MOANS scores
 - MOANS and FMV
 - Difficult FMV and intubation
- Limitations: small sample, missing registries.

Conclusions

- LEMON score was able to predict poor laryngoscopic view in our obese population, and will be included in our routine evaluation.
- MOANS did not prove useful in predicting difficult mask ventilation in our sample. Larger samples are needed to test its utility.

¹Reed MJ, et al. Can an airway assessment score predict difficulty at intubation in the emergency department? Emerg Med J 2005;22:99-102. ²Walls R, Murphy M. Manual of Emergency Airway Management. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health, 2012. ³Langeron O, et al. Prediction of Difficult Mask Ventilation. Anesthesiology 2000;92:1229-1236.