

## Multimodal therapy for the management of the difficult pediatric airway



### Terapia multimodal para manejo de vía aérea pediátrica difícil

Dear Editor,

We read with interest the case report of Fuentes et al.<sup>1</sup> concerning the use of a fiberoptic intubation method through a Laryngeal Mask Airway (LMA) in an infant with Treacher Collins Syndrome. I congratulate them on the presentation of the case. I would like to add some comments.

Treacher Collins syndrome is an autosomal dominant craniofacial development disorder characterized by severe defects that create a difficult airway. Failure of tracheal intubation remains a leading cause of morbidity and mortality. Different devices and techniques have been developed to assist this problem. However, all of them have disadvantages and no device is infallible in all circumstances.<sup>2</sup> Thus, the failures of each, when used alone, are more frequently reported, as this case, but the combined use can overcome individual limitations increasing the success rate.<sup>3</sup> Currently, there is a growing tendency to use Fiberoptic Bronchoscope (FOB) in combination with other airway techniques as a multimodal approach to difficult airway management.

The combined use of an FOB and a LMA, as Fuentes et al. describes, have several advantages. The ILMA ensure ventilation and isolate the airway of possible presence of secretions or blood in an emergent context,<sup>4</sup> and on the other hand, if it seat properly, LMA is situated around the glottis and provides a pathway for the FOB, facilitating its maneuverability.

Likewise, FOB may be combined with Video Laryngoscopes (VL) to reduce runtime and to maximize the success of endotracheal intubation.<sup>5</sup> Thus, through this multimodal therapy, the VL provides an unobstructed route to FOB, placing it in the vicinity of the glottis and allows visualization of the advance of ETT on FOB through the vocal cords, while the FOB can overcome the existing acute angle between the ETT and the glottis.<sup>3</sup>

Both methods are successful in reducing the number of interventions in the airway and thus, the likelihood of a dramatic "cannot intubate, cannot ventilate" scenario.

The multimodal approach to the airway is increasingly accepted. The ability of the FOB to be combined with many

other airway devices is incomparable. The combined use of airway techniques should be high on the priority option for rescue of difficult FOB intubation or as primary approach for the management of the difficult pediatric airway.

### Conflicts of interest

The authors declare no conflicts of interest.

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