**Título:** WHEN LARYNGEAL MASK SAVES A NEWBORN’S LIFE - CASE REPORT

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**Área Terapêutica/Tema:** Manejo da Via Aérea (Airway Management)

**Resumo:**

INTRODUCTION

Pierre Robin sequence (PRS) is a rare congenital birth defect defined by a triad of micrognathia, glossoptosis and airway obstruction.1 As a predictable difficult airway, a systematized perioperative plan is mandatory, considering different strategies to protect the airway maintaining spontaneous ventilation.2

CASE REPORT

We report a case of a newborn male, uncomplicated eutocic delivery, diagnosed with PRS associated with cleft palate (figure 1 and 2), conditioning feeding difficulties and respiratory distress, that was scheduled for mandibular distraction osteogenesis, at 27 days of life.

A multidisciplinary perioperative plan was carried out considering different strategies of airway management. After adequate monitoring, inhalatory anesthesia was induced and maintained with sevoflurane and orotracheal fibre-optic intubation was performed, under spontaneous ventilation, with a 3,5mm orotracheal tube (OTT). Adequate OTT placement was confirmed through direct visualization and capnography curve.

Halfway through the procedure, a progressive elevation of CO2 end tidal was noted, accompanied by a prolonged expiration phase on capnography waveform. Wheezing on auscultation and oxygen desaturation were also noticed. Due to suspicion of bronchospasm, the inspired oxygen fraction and sevoflurane were increased and endovenous succinylcholine, ketamine and inhaled salbutamol was administered with no improvement. Due to hemodynamic deterioration, advanced life support was initiated. During the third cycle of CPR, sudden loss of capnography accompanied by absence of chest rise and no breath sounds on auscultation led to suspicion of OTT dislodgement. It was replaced for an AuraGainTM size-1 laryngeal mask airway (LMA) with return to spontaneous circulation on the next cycle of CPR. A tracheostomy was then performed to secure the airway and facilitate ventilatory weaning. The remaining surgery was uneventful.  After, the patient was transferred to the neonatal intensive care unit.

DISCUSSION

Managing a neonatal difficult airway can be a real anesthetic challenge, especially in patients with PRS. Despite having a successful first airway approach, complications can occur and should be anticipated. LMA can be helpful as a rescue airway on CPR until a definitive airway is obtained, particularly in a difficult airway management.

REFERENCES:

1 Anesth Analg. 2014 Aug;119(2):400-12

2 J Pediatr Intensive Care. 2018 Sep; 7(3): 115–125.