

[NM-325] Case Report: Position of Comfort: Over the shoulder positioning alleviates intractable airway obstruction in a patient with Micrognathia-Glossoptosis Syndrome after palatoplasty.

Baik M, Karlberg H, Watcha M
Texas Children's Hospital , Houston , Texas, United states

A 10 month old female with isolated Veau 2 cleft palate presented for primary palatoplasty. The child had stridor and feeding difficulties from birth but had a 4 kg weight gain over the prior 5 months and underwent an uneventful bilateral myringotomy and tube placement procedure. However, perioperative airway obstruction risk was rated as high in view of the history of snoring, presence of cranio-facial abnormality, planned airway surgery with and opioid analgesia.(1) Inhalation induction of anesthesia, mask ventilation, oro-tracheal intubation and palatoplasty was uneventful. The trachea was extubated when the patient was awake and had a good leg lift. Significant upper airway obstruction after extubation occurred with poor air movement, chest wall retractions and upper airway noises despite CPAP and oral and nasal airway placement. Traction on the tongue stitch temporarily relieved obstruction.

The patient remained restless and anxious with oxygen saturations of 80-90% in the prone position with nasal BiPAP (figure 1). A “standing over the shoulder position” with continued nasal BiPAP improved air movement, reduced agitation, chest wall retractions, stridor and resolved distress (figure 2). The parents confirmed that they routinely used this position of comfort with the child upright on their shoulder to improve sleep patterns. The patient had no further respiratory events in this position in the PICU. BiPAP was discontinued on POD#1, and the child discharged 2 days later with home pulse oximetry monitoring. There were no further airway obstruction or hypoxemic events.

This case shows that significant airway obstruction can occur from the posterior displacement of the tongue and edema from surgical trauma after cleft palate closure. While prone positioning has been a standard maneuver to relieve airway obstruction in this situation, it is not always successful. In our case, the upright position combined with BiPAP and comforting interaction by a caretaker, improved ventilation and oxygenation without additional airway instrumentation. We suggest that the upright position should be tried in selected cases if prone positioning does not improve airway obstruction.

REFERENCES: Anesthesiology 2006; 104: 1081-93



