



Albany Medical Center



Airway Management Planning for Delivery in a Parturient with Congenital Mandibular Hypoplasia: A Case Report

Maria Santa Cruz, DO, Aaron Paul, BS, Margaret O'Donoghue, MD

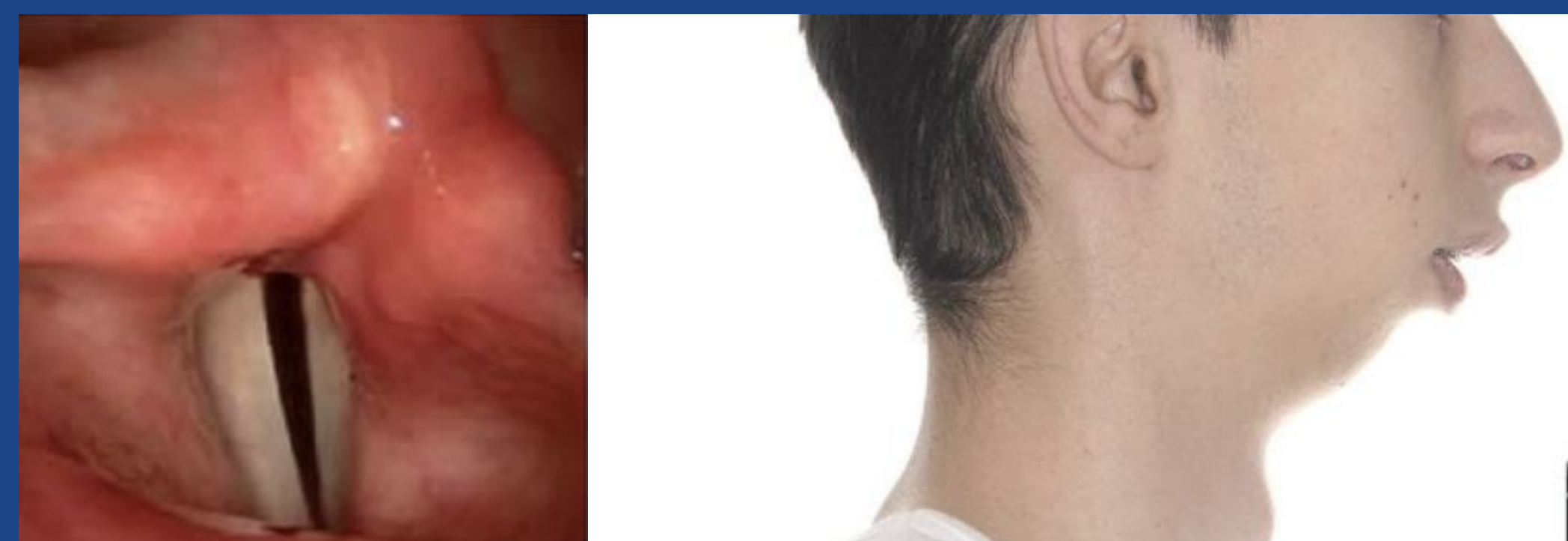
Background

- Failed intubation occurs in approximately 1 in 250–300 obstetric patients, significantly more often than in the general surgical population, and maternal mortality from failed intubation is nearly four times higher [1,2]
- In congenital mandibular hypoplasia, mandibular underdevelopment and retrognathia may obstruct the airway, with pregnancy-related edema further increasing airway difficulty [3]
- ASA guidelines recommend early neuraxial catheter placement in parturients with anticipated difficult airways [4]

Case Description

25-year-old G1P0 woman with limited prenatal care was referred at 31 weeks for anesthesia evaluation due to congenital mandibular hypoplasia and concern for a difficult airway.

- ENT was consulted. The exam showed marked retrognathia and an inability to open the mouth, making oral intubation difficult
- Flexible fiberoptic nasal endoscopy showed the left nasal passage could accommodate a small endotracheal tube (6.0 or smaller). The epiglottis was visible and the vocal folds were mobile.



Management & Outcome

After multidisciplinary planning early epidural analgesia was recommended for vaginal delivery. Spinal anesthesia was planned for cesarean delivery. The patient was flagged as a difficult airway, and contingency planning ensured rapid access to emergency airway equipment and ENT and trauma teams for a possible surgical airway.

At 37 weeks 6 days, she presented in active labor at 8 cm dilation and progressed quickly. An epidural was placed at L3–4. Delivery was successful without cesarean, and no airway intervention or general anesthesia was required.

Discussion/Conclusion/Teaching Points:

This case highlights the importance of early identification and multidisciplinary planning for obstetric patients with anticipated difficult airways.

- ASA guidelines recommend early neuraxial catheter placement in patients with anticipated difficult airways [4].
- Accordingly, early epidural analgesia was planned to reduce the risk of emergent general anesthesia if operative delivery became necessary.
- Multidisciplinary coordination and contingency planning ensured rapid access to emergency airway equipment and specialized personnel.
- If general anesthesia had been required, awake fiberoptic intubation would have been the preferred approach [4–6] with ENT and trauma readily available

This case demonstrates how proactive planning, team-based care, and comprehensive prenatal assessment can minimize general anesthesia and reduce airway-related complications, resulting in excellent maternal and fetal outcomes

