Inadvertent Oronasal Fistula Cleft Intubation in Post-Palatoplasty Treacher Collins
Clementine Vo, D.O. and E. Alexis Bragg, M.D.

Introduction

Cleft lip and palate are common defects and may be isolated or associated with disorders such as Treacher Collins Syndrome (TCS). Correction with a palatoplasty minimizes feeding or respiratory difficulties and speech delay. Patients may later undergo surgeries that require nasal intubation (NI), which presents instrumentation concerns to the anesthesiologist.

Case
• 3 yo female with TCS and left cleft palate post-palatoplasty presents for dental extractions
• History of difficult intubations necessitating fiberoptic assistance; has never been nasally intubated
• Presence of a residual alveolar cleft that was to be repaired at eight years of age
• Suspected oronasal palatal fistula

Induction:
• First attempt at placing the scope into the right nare was difficult
• Next attempt through the left nare was successful
• Placement was confirmed by identification of the carina, ETCO2, and bilateral breath sounds

After intubation:
• ETT was found to course from the nare and into the oronasal fistula through the alveolar cleft before terminating in the trachea
• Evaluation by Craniofacial Surgery (CFS) revealed no damages. Patient was extubated at the end of surgery without difficulty. Postoperative course was uneventful and follow-up was without sequelae

Discussion

• Palatoplasty: creating periosteal flap closure by 6 mos, then a bone graft around 9 years of age
• NIs are discouraged unless a thorough evaluation of the post-palatoplasty anatomy has been performed¹
• Some authors recommend imaging, nasal pharyngoscopy, or pharyngoplasty flap division¹-³

• Consider placing a nasal trumpet to assess the fistula’s path and using a soft catheter to guide the nasal ETT
• Digital guidance may be used if ceiling or fistula entry occurs
• GlideScope or fiberoptic scope may advance the ETT
• If fistula entry has occurred, the ETT should be left in place to avoid further manipulation, and immediate evaluation by CFS should be performed

Palatoplasty causes post-surgical changes that may be difficult to bypass. It is important to be aware of these changes, and adopt appropriate nasal intubation techniques to prevent potential damage to the previous flap, residual cleft, or fistula.

References