Introduction: Naso-tracheal intubation is commonly performed for maxillofacial surgery or dental procedures or when oro-tracheal intubation is not feasible (e.g., limited mouth opening).

Case Report: A patient with a peri-oral burn scar presented for surgical revision utilizing naso-tracheal intubation with an oral RAE endotracheal tube (ETT) at an international Operation Smile medical mission when conventional nasal RAE ETs were unavailable. She was a 12 year-old 35 kg female with a burn injury scar around her mouth and lips that prevented complete closure of her oral cavity. She had constant tricking of saliva, especially during mastication.

The surgeon requested a nasal intubation to facilitate alignment of the lips with surgical repair. The mission supplies included only oral RAE ETs. We measured a 6.0mm cuffed oral RAE tube externally from her naris to her glottis along the side on her face to approximate an adequate insertion depth. We placed an IV prior to induction and applied standard ASA monitors. After an uneventful IV induction with propofol and fentanyl, oxymetazoline drops were applied to both nostrils. We lubricated the ETT with 1% lidocaine gel, and placed a 14 French suction catheter through the lumen as a guide.

We placed the leading tip of the suction catheter through the right nostril, following with the oral RAE ETT. As the tip of suction catheter became visible with direct laryngoscopy in oropharynx, we secured the tip of the suction catheter with a straight forceps and advanced the ETT gently through the nostril over the suction catheter guide until the tip of oral RAE tube was visible in oropharynx. As the oral RAE tube has a preformed angle, the tracheal end of ETT was directed anteriorly and could not initially be advanced through the glottis. Using a straight forceps, we first advanced the distal tip of the suction catheter through the vocal cords, and then advanced the 6.0 oral RAE ETT over the suction catheter while securing the catheter’s proximal end. The oral RAE ETT advanced easily through the vocal cords. We confirmed position of the ETT with auscultation of breath sounds and an end-tidal carbon dioxide waveform.

Discussion: Nasal intubation for oral surgery places a significant challenge for anesthesiologists. In above given case, absence of nasal RAE endotracheal tube with limited options, we decided to use oral RAE ETT to secure a naso-tracheal airway for surgery. It provided an optimal surgical field while securing the airway. Our precautions included measuring for an adequate length of the ETT and using a suction catheter as a guide. In conclusion, an oral RAE ETT can be used to nasal intubation for securing a naso-tracheal airway when ETT resources are limited.