Unusual Access to Airway with Transorbital Intubation

Luiz Fernando dos Reis Falcão, M.D., Ph.D., Fausto Negreiros, M.D., Rogério F. França, M.D., José Luiz G. Amaral, M.D., Ph.D.

Airway management in patients with previous extensive facial surgery can be challenging. We report, after patient’s written consent, a method for transorbital intubation in a 46-yr-old man with partial maxillectomy and right orbital exenteration. Physical examination revealed limited mouth opening, Mallampati 4, and adequate sternomental and thyromental distances. The patient was positioned supine using a suboccipital cushion and preoxygenated by facial mask. Anesthesia was induced with propofol 50 mg and fentanyl 75 μg, facilitating oral laryngoscopy with a Macintosh laryngoscope (Goldstar™, Sialkot, Pakistan) under spontaneous ventilation. The glottis (fig. A) could be seen through the orbital cavity. Anesthetic induction was complemented with fentanyl, propofol, and succinylcholine. Uneventful transorbital intubation was then performed.

The patient’s airway posed potentially difficult alignment of the oral, pharyngeal, and laryngeal axes. Nevertheless, when he was awake, transorbital view allowed good visualization of the superior airway as the nasal cavity was connected to the orbit, justifying the transorbital approach. Normal laryngoscopic view (fig. B) includes the oral axis. There is a difference in the geometry of intubation when the oral axis is absent (fig. C), and its exclusion during the transorbital approach may have contributed to the success of the procedure.

Head elevation and extension is considered the optimal position for direct laryngoscopy due to the three axes alignment theory.1 This report stresses the importance of correct axes alignment even when the airway geometry is unusual.2,3 Furthermore, transorbital intubation appears to be safe and effective, and may be a good alternative in patients with previous orbit exenteration when the bronchoscope is unavailable.

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Competing Interests

The authors declare no competing interests.

Correspondence

Address correspondence to Dr. Falcão: luizfernandofalcao@gmail.com

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