



## Correspondence

## Simultaneous orthognathic surgery and rhinoplasty under nasotracheal intubation



Dear Editor,

The aim of this paper is to describe how to place the breathing tube when a rhinoplasty in the context of an Orthognathic Surgery (OS) with nasotracheal intubation is conducted. OS allows correction of dento-facial abnormalities. Its incidence has been estimated around 5–25% of the population; and it's etiology still unknown. Surgery technique is complex, with maxillary osteotomies that allow forward, backward, impactation and rotation of these bones. The association between problems of maxillary-teeth complex and nose are frequent. With maxillary osteotomies and rhinoplasty these can be approached. Optimum functional-aesthetic results and safety patient remain the principal goals of these surgeries. Thus, anesthetic management of these patients is a challenge. Firstly, anticipation of difficult airway management. Secondly, perioperative pain management. Surgeon and anesthesiologist share work field; and the maintenance of superior airway permeability is the main purpose. Maxillary osteotomy with general anesthesia is the common practice. Nevertheless, from the point of view of the anaesthesiologist, since standard OS procedures entail intermaxillary fixation, a nasotracheal intubation is required. However, an orotracheal intubation is preferred for rhinoplasty procedures, so as to ensure nasal symmetry. Thus, the following solutions have been described in order to sort out the tube drawbacks when an OS and a rhinoplasty are carried out simultaneously; unfortunately, each of them implies the following disadvantages respectively.

Changing from a nose to an orotracheal intubation after surgery is the most frequent procedure and most widely described in literature. It

takes however longer and is not exempt of inconvenience like for instance the risk of extubation, broncoaspiration and the impossibility to intermaxillary fixation. Tracheostomy is an invasive access of the airway that requires the proceedings of an expert. It implies longer surgery time and postsurgery care. Additionally it has a higher probability of complications. Most common complications are internal bleeding, subcutaneous emphysema, damage of the recurrent laryngeous nerve, infection, decanulation, and in addition to a wide scar in a very visible area. Retromolar intubation can be practiced if retromolar space is sufficient or by the realization of a semilunar osteotomy in the retromolar space. It offers an intraoral surgery field without obstruction with safe handling of the airway and it can be done without major constraints in the majority of cases. However, for those cases where the bone anatomy needs to be modified, it requires an average of 25 min, which significantly increases surgical time [1]. Submental intubation allows a surgical field without interferences and a safe management of the airway without needing to change the intubation tube. It has however other inconvenience. There is high risk of damaging structures in the Wharton conduct, the submaxillary glands and the lingual nerve. Other complications are internal bleeding, infection, orocutaneous fistulae, selective intubation or extubation during manipulation of the tube and alteration of facial aesthetics [2].

However, we consider that for selected patients both proceedings can be applied while preserving nasotracheal intubation with a simple maneuver. Slide the nasotracheal tube 45° with regards to the patient's skin (Fig. 1. Patient informed consent accepted). This way surgery time is reduced, aesthetics are preserved and the airway is kept safe at all

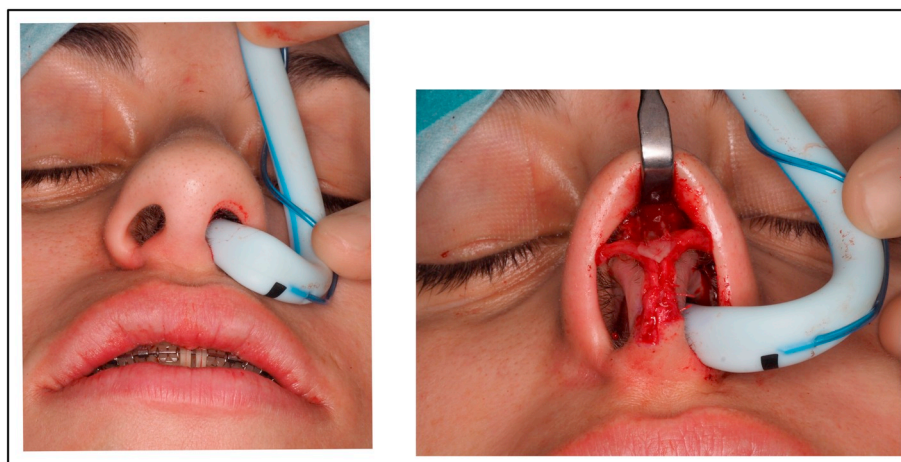


Fig. 1. Rhinoplasty with nasotracheal tube.

<https://doi.org/10.1016/j.jclinane.2018.12.031>

Received 4 October 2018; Received in revised form 7 November 2018; Accepted 18 December 2018  
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time. We can only advice against our described technique in 3 situations. First, when rotational maxillary movements are to be made. Second, when facial asymmetries are given, and last in the case of important nasal corrections.

This simple maneuver does not modify the natural position of the nose, and allows rhinoplasty to be performed safely and obtain the planned results. In addition, the surgical time is shortened, and the most important, the airway is kept safe at all times.

### Acknowledgements

Assistance with the report: none.

Financial support and sponsorship: none.

Conflicts of interest: none.

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