

There were 23 participants with a range of experience: six had performed less than 20, eleven between 20 and 50, and six participants had performed more than 50 conventional (asleep) VATIs. Holding the VS with the left hand and directing the TT with the right hand was associated with a faster time to successful tracheal intubation (Table 5).

This small study shows that anaesthetists who are familiar with traditional videolaryngoscopy find it easier to hold the VS in their left hand and direct the TT with their right hand in face-to-face intubation attempts. Both groups perceived their second attempt at this procedure to be easier, which may be explained by a learning effect from the first attempt on the second attempt. This study shows that face-to-face VATI is a technique in which the logistics and ergonomics need to be practised in a non-emergent situation.

References

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Pressure in the airway under apnoeic oxygenation with different nasal flow rates: a randomised controlled study

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High-flow nasal cannula therapy (HFNCT) is recognised to avoid desaturation during airway management.¹ Studies in spontaneously breathing patients showed a linear relationship between flow rate and positive airway pressure in the nasopharynx.² Increasing airway pressure is discussed as a beneficial mechanism of HFNCT. In apnoeic adults under anaesthesia, there is no data on subglottic pressures generated with HFNCT.

With Ethics Committee Bern approval and written informed consent, this study investigated airway pressures generated by HFNCT in apnoeic patients with opened and closed mouth, using different flow rates in a randomised order (1, 20, 40, 60, and 80 L min⁻¹). Standard anaesthesia induction agents and neuromuscular blocking agents were administered. Jaw thrust was applied to ensure upper airway patency. Airway pressure was measured in the right main bronchus 2 cm from carina, in the middle of the trachea, and in the pharynx above the vocal cords with a 11 Fr airway-exchange catheter (COOK Medical, Bloomington, IN, USA), placed under fibrescopic control, connected to a pressure transducer. Each measurement at each position with each flow was performed randomised with open and closed mouth.

Twenty patients undergoing elective surgery were included (38 [18] yr old, BMI 25 (3) kg m⁻², nine females, ASA physical status classification: 1 [35%], 2 [55%], and 3 [10%]). A non-linear increase of pressure with closed mouth and higher flow rates was observed (Fig. 5). With open mouth, there was only a minimal increase in pressure (Fig. 5). No difference in pressures was observed between bronchus, trachea, and pharynx.

These preliminary results show the generation of a flow-dependent positive airway pressure in the airway of apnoeic

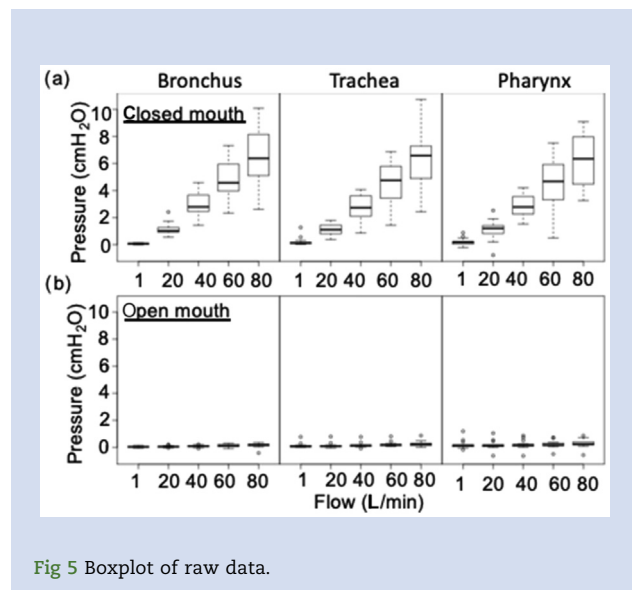


Fig 5 Boxplot of raw data.

patients with closed mouth under HFNCT. Surprisingly no relevant pressure increase was observed while the patient's mouth was open. This challenges the mandate to keep the mouth open during HFNCT and the alleged mechanism of positive airway pressure generation as an important physiological mechanism of oxygenation during apnoea. Furthermore, airway pressures remained below 10 cm H₂O despite flow rates of up to 80 L min⁻¹, suggesting that HFNCT may represent a safe option even if the mouth is closed. During this study, we never observed pressure levels possibly causing lung injuries.

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Cook Medical (airway-exchange catheters).

References

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Preoxygenation with high-flow nasal cannula versus face mask in morbidly obese patients

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Morbidly obese patients have reduced functional residual capacity, putting them at increased risk of critical desaturation during induction of anaesthesia.¹ We aimed to compare the heated humidified high flow nasal cannula (HFNC) to standard management for preoxygenation, and oxygenation during apnoea and tracheal intubation in this patient population.

We report preliminary data from a randomised, single-centre, open-labelled, controlled trial. After approval by the local ethics committee and written informed consent, patients scheduled for bariatric surgery were randomly assigned to