Was Button gassed?

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Editor—The robbery of Jenson Button in the South of France while under the influence of an alleged externally administered sedative anaesthetic inhalation agent in gaseous form, gained a robust dismissal by the Royal College of Anaesthetists who ‘. . . reckoned such a scheme would be nearly impossible’. A spokesman said: ‘Our view is that it is very unlikely because it would be so impractical. You would need to use a truckload of gas, and that amount would be phenomenally expensive to obtain. One has to ask why anyone would spend so much money on it’. The French police were also sceptical, although there has been previous alleged gassing in France, one of the footballer Patrick Viera, another the fashion presenter Trinny Woodall. Vapour monitors will detect gas in truck cabs and motor homes in the United Kingdom.2 The Royal College can be challenged on counts of impracticality, volumes, and cost. Inhalation agents chloroform and trichloroethylene (trilene) are anaesthetics of the past, and chloroform has been used for criminal acts.3 They are easily available, the former is a solvent, the latter an industrial de-greaser, and both can be purchased (with restricted sales) for a modest sum in the United Kingdom, and presumable in France. Trilene was available off-the-shelf in French supermarkets until 20 yr ago; removed after its abuse was noted. Avogadro’s Hypothesis when applied to chloroform gives 22.4 litres of gas at standard temperature and pressure from its molecular weight in grams of 119.38 g. Taking into account liquid density of 1.49 and at 20°C, 80 ml of chloroform will give 24 litres of gas, representing 100%, in a closed chamber. The minimum alveolar concentration (MAC) required to eliminate movement after a surgical incision in 50% of patients anaesthetised with chloroform, is within the range of 0.5–0.7%. MAC of trilene is considerably less at 0.17%. A sedative effect may occur at half of this percentage, and for a closed room of 4×4×6 metres (96 000 litres), 0.8 litres of chloroform will produce 240 litres of (heavier than air) gas. The considered route of entry into the presumably sealed Button villa was via the external air conditioning fan unit. Both Chloroform and trilene are sweet smelling, and with a slow induction of anaesthesia from a soaked ‘wick’ into a sleeping household, any smell may go unnoticed. Criminals with an anaesthetic bent (or vica versa), may well practice use of these agents in villas of different sizes, in order to refine delivery times and safe administration.

References


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GlideScope video laryngoscope-assisted nasotracheal intubation by cuff-inflation technique in head and neck cancer patients

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Editor—Nasotracheal intubation (NTI) for anaesthesia in oral and maxillofacial surgeries can be challenging because of oral swelling, decreased submandibular compliance, reduced mouth opening, and distorted facial and pharyngeal structures.1,2 In patients with restricted mouth opening, fibre-optic bronchoscope-guided NTI is the gold standard.3–5 Fibre-optic bronchoscope-guided intubation requires expertise, may not be feasible in the presence of bleeding from a tumour mass, and may not be available everywhere. Other options include blind nasal intubation or nasal intubation guided by a laryngoscope. Blind nasal intubation is a dying art, has a high failure rate, requires expertise, and is not a safer option for cancer patients because of the risk of trauma and bleeding.1,3 Also, the anatomy may be distorted in such patients and anatomical landmarks are not well defined, making blind nasal intubation more difficult. The GlideScope video laryngoscope (GSLV) has been shown to be superior to a laryngoscope for orotracheal and nasotracheal intubation when used by novices in airway management.7 The cuff-inflation technique (cuff of tracheal tube inflated with 15–20 ml of air) has been described for blind nasal intubation and laryngoscope-guided NTI.7,8 We are describing our initial experience of successful GSLV-assisted NTI
using the cuff-inflation technique in patients with head and neck cancers.

After obtaining written informed consent, a pre-anesthetic check-up, preparation of the nostrils (decongestion with xylometazoline nasal drops), and preoxygenation, anaesthesia was induced with propofol. After ensuring adequate bag-and-mask ventilation, rocuronium 0.6 mg kg⁻¹ was administered, and 3 min later a tracheal tube size 7 was inserted through a nostril until its tip passed the posterior naris (as assessed with external measurements from the tip of the nostril to the tragus). The GSLV was inserted in order to see the glottis. The cuff of the tracheal tube was inflated to lift it from the posterior pharyngeal wall, to bring the tip towards the glottis under GSLV visualization, and the tube was negotiated further through the glottis. Once the tip of the tracheal tube was passed through the glottis, the cuff was deflated and the tracheal tube further advanced.

We observed 100% success rate for nasotracheal intubation in our series of five patients at the first attempt. The time taken for intubation ranged from 35 to 60 s. In two patients, the tracheal tube with the cuff inflated could be guided through the glottis but could not be advanced further into the trachea after deflation of the cuff. In these two patients, the tracheal tube was successfully advanced with 180° rotation. Oxygen saturation remained more than 95% in all patients. There were no episodes of mucosal bleeding or dental trauma during intubation of any of the patients.

In the head and neck cancer patient, it may be difficult to align the three axes (tracheal, pharyngeal, and oral). During NTI, GSLV not only provides better glottic exposure quickly but also reduces airway distortion and provides a more direct route to navigate the tracheal tube into glottis. Despite a good view of the glottis, intubation may be difficult, and some manoeuvres or equipment, such as Magill’s forceps, a bougie, tracheal tube s forceps and movement of the patient’s neck, are required assist in intubation. Use of Magill’s forceps and movement of the head and neck may be difficult and may injure the tumour mass and cause bleeding.

In our patients, we inflated the cuff of the tracheal tube to lift it from the posterior pharyngeal wall, to bring the tip of the tube towards the glottis under GSLV visualization. All the patients had the mouth opening more than 1.8 cm (sufficient to insert the GSLV), and we had confirmed mask ventilation after induction of anaesthesia (before administering the neuromuscular blocking agent). As the tracheal tube was not inserted through the oral cavity, it was easier to manipulate the GSLV, and NTI was easier than orotracheal intubation. Our technique may be limited in patients with mouth opening less than 1.5 cm because this much space is required for insertion of the GSVL blade.

To conclude, GlideScope video laryngoscope-assisted nasotracheal intubation using the cuff-inflation technique may be considered as an alternative to isolated blind cuff inflation or fibre-optic bronchoscope-assisted NTI in patients with head and neck cancers.

Declaration of interest
None declared.

References

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Variability of fasting outcomes observed in a single patient
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Editor—Fasting guidelines before anaesthesia seek to strike a balance between the safety that an empty stomach affords the anaesthetist and the discomfort of thirst and hunger inflicted on the patient. These guidelines are predicated on a degree of reliability in gastric emptying across the operative population. However, we present a patient in whom vastly different outcomes for gastric emptying were observed across serial abdominal magnetic resonance imaging (MRI).