

Awake intubation with C-MAC videolaryngoscope in a patient with difficult airway

Sir,

The role of videolaryngoscopy has increased in the management of the difficult airway in recent times. We report a case where C-MAC D-blade videolaryngoscope (VL) was used in the airway management of a patient with cervico-facial necrotising fasciitis scheduled for surgical debridement.

A 28-year-old male patient was posted for surgical debridement of cervico-facial necrotising fasciitis with multi-organ dysfunction. He was a known case of type 1 diabetes mellitus (DM). On examination, the patient was irritable and disoriented due to sepsis-induced encephalopathy (GCS-E3V3M5). He had a swollen and blackened right cheek due to necrosis with extension to the neck [Figure 1]. The mouth opening of the patient was around 1.6cm with restricted neck mobility, eliminating the possibility of neck extension. Our primary airway management plan was awake intubation via C-MAC VL (Karl Storz) blade D. A fibre-optic bronchoscope with an endoscopic mask was readily available as an alternative airway management plan. A skilled ear-nose-throat (ENT) surgeon was also requested to be standby for the emergency tracheostomy.

In the preoperative room, the patient's airway was prepared by nebulisation with 4mL of 4% lignocaine. In the operating room, standard American



Figure 1: Cervico-facial necrotising fasciitis involving the entire right cheek and extending to the neck

Society of Anesthesiologists (ASA) monitors such as electrocardiogram, non-invasive blood pressure and pulse oximeter were attached to the patient. The patient was sedated with 50 µg fentanyl and dexmedetomidine (loading dose of 1 µg/kg, followed by the infusion of 0.5 µg/kg/h). The patient received continuous oxygen via a nasal catheter with a flow of 3 L.min⁻¹. Topical anaesthesia was supplemented with two puffs of lidocaine 10% metered spray applied directly on the surface of the tongue and oropharynx. Videolaryngoscopy was done using an adult D-blade of C-MAC and the percentage of glottic opening (POGO) score was found to be zero. Simultaneously, the posterior pharyngeal wall was anaesthetised with two puffs of 10% lignocaine spray to blunt the reflexes during insertion of the endotracheal tube (ETT). The patient was then intubated with a 7.5 mm internal diameter (ID) ETT with the aid of Eschmann stylet (Portex; Smiths Medical). After confirmation of the capnography waveform, general anaesthesia was induced with propofol and rocuronium. The surgery lasted uneventfully for around 100 min after which the patient was shifted to the intensive care unit, and was extubated the same day.

Cervico-facial necrotising fasciitis is a soft tissue infection that spreads along with the superficial musculoaponeurotic system and early aggressive surgical debridement is the mainstay in achieving a successful outcome.^[1] Anaesthetic management of such patients is challenging as the pain, swelling and oedema due to inflammatory processes restrict the facial and cervical movements, making the airway potentially difficult. Awake fibre-optic intubation (AFOI) is considered the technique of choice in predicted difficult airway. AFOI has a steep learning curve and requires patient cooperation. Recently, VLs have gained immense popularity as the first-line devices in adult and paediatric difficult airways due to feasibility of orotracheal intubation in a restricted mouth opening.^[2,3] Karmer *et al.* described C-MAC VL as superior to fibre-optic intubation (FOI) in terms of faster intubation time in limited mouth opening patients (>1.3cm).^[4] Alhomary in a systematic review also confirmed that awake video laryngoscopy has a shorter intubation time compared to AFOI.^[5]

In our institute, we frequently use D-blade of C-MAC for difficult intubations and so are well versed with it. Hence, C-MAC was chosen as a primary airway management plan to quickly secure the airway. Since the D-blade has a thickness of around 1 cm, it can be easily accommodated in the limited mouth opening patient and has a better field of vision (60 degrees angle of view) with the requirement

of less lifting force to visualise the glottis, especially in patients who are not fully anaesthetised.^[6]

To conclude, we suggest that awake videolaryngoscopy using D-blade of C-MAC VL can be considered as an alternative for tracheal intubation in difficult airway scenarios where AFOI is difficult or not possible.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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