

Primary management of post-burn contracture neck with tracheostomy: A surgeon and an anaesthetist's perspective

Sir,

A 42-year-old female with severe post-burn contracture neck (8-year-old), [Figures 1 and 2] with restricted mouth opening (1 finger), Mallampati 4, maxillo-pharyngeal angle about 90° treated initially at a primary health centre, came to our setup for the surgical management of the contracture. After the patient was explained about the unavailability

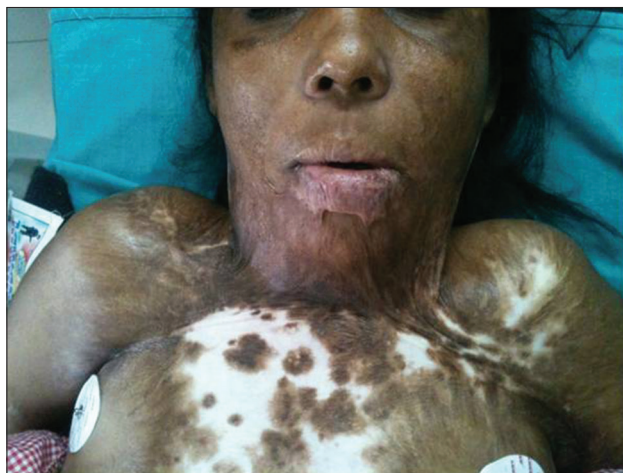


Figure 1: Pre-operative photograph of the patient showing severe post-burn contracture of the neck



Figure 2: Side profile of the patient pre-operatively showing the degree of sternomental contracture

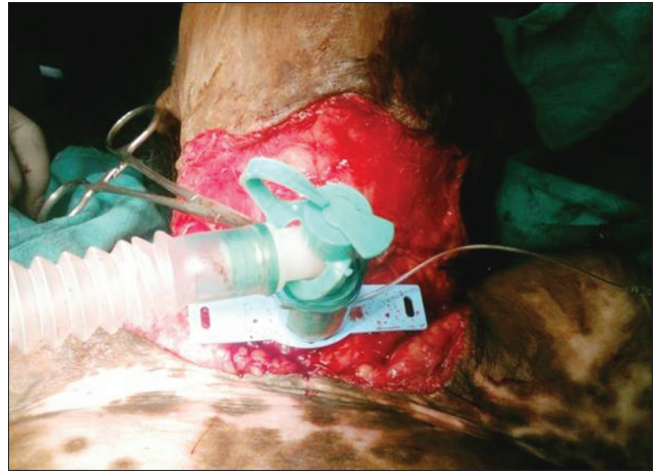


Figure 3: Tracheostomy *in situ* as an interim procedure to allow further release of the contracture and correct the oropharyngolaryngeal axis



Figure 4: Post-operative photograph of the patient with skin graft after release



Figure 5: Post-operative photograph of the patient showing the degree of release and the excellent take of the graft

of fibre-optic bronchoscopy,^[1] she was optimised and taken up for surgery. Consent for emergency tracheostomy was taken as a protocol.

After two unsuccessful attempts of intubation following the release of neck bands under local anaesthesia and eventual sedation with injection midazolam and injection propofol and check ventilation, the patient was considered for tracheostomy [Figures 3 and 4]. After administering vecuronium, the tracheostomy established the airway. Then, the contracture was further released. At this point of time, a reattempt of intubation with an endotracheal tube attempted over a stylet, simultaneously withdrawing the tracheostomy tube, was successful. The Bjork's flap was closed after achieving haemostasis. Strap muscles were also apposed with sutures. Skin grafts harvested from the thigh were used to resurface the raw areas and secured [Figure 5].

The post-operative period was uneventful and the graft take was satisfactory.

Literature reveals numerous methods of handling a difficult airway using C-Trach, intubating Laryngeal mask airway-(LMA), fibreoptic bronchoscope and AMBU LMA.^[2] If awake intubation fails, the first step would be to release the contracture bands under injection ketamine^[3] and local anaesthesia. But then, that would mean that the patient would be under spontaneous ventilation and compromise in the quality of surgery. Furthermore, the use of long-acting muscle relaxants would be contraindicated at this stage.

Tracheostomy still has been quoted at the end of the algorithm for management of these airways. The fear of surgical emphysema, bleeding eventually

obstructing the airway, oedema and leaks has made tracheostomy unpopular among surgeons as well as anaesthetists for such cases. However, in our cases, scenario tracheostomy was fortunately advantageous as it enabled (1) the use of long-acting muscle relaxants and (2) correcting the tracheobronchial axis by allowing further release of the extensive contracture bands and eventual introduction of endotracheal tube eventually. The main part of emphasis of the article is the ultimate successful closure of the tracheostomy and successful graft resurfacing and uptake contrary to the traditional fear of graft loss due to contamination. The authors would like to recommend the use of indirect laryngoscope^[4] as one of the pre-anaesthetic examinations for such patients to anticipate such airway difficulties.

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Conflicts of interest

There are no conflicts of interest.

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