Airway management of a patient with laryngotracheal disruption following blunt neck trauma

Dear Editor,

A 28-year-old male patient presented with history of trauma neck while riding bike, after being entangled by an electric wire around his neck. On arrival, the patient was stable with 96% saturation and had minimal contusion in front of neck and subcutaneous emphysema. Computed tomography neck showed discontinuity of larynx and trachea [Figure 1: CT showing laryngo-tracheal disruption].

The patient soon became severely dyspnoeic and restless along with stridor and inability to lie down. Subcutaneous emphysema had worsened with extension to face and chest. Saturation dropped to 90% and emergency tracheostomy was decided. The patient was in severe distress and unable to lie down. The plan was to do awake fiber-optic-assisted intubation as trachea was nonpalpable due to increasing subcutaneous emphysema for tracheostomy to be performed under local anesthesia.

In the operating room, the patient was made to sit on the table. Electrocardiogram, pulse oximetry, and noninvasive blood pressure monitors were attached. Upper airway was topicalized with 10% lignocaine spray and 2% lignocaine jelly. Fiber-optic bronchoscope (FOB) preloaded with 7.0 size endotracheal tube was passed nasally while the patient was in sitting position with the anesthetist facing the patient. As epiglottis was visualized, 4 mL of 4% lignocaine was sprayed through the side port of FOB. In the first attempt, scope was passed beyond the vocal cords but trachea could not be visualised and scope entered a blind sac. During the second attempt, tracheal rings were visualized. Trachea was found to be grossly deviated to one side and was not in alignment with glottis. FOB was advanced into trachea till carina and endotracheal tube was railroaded over it. Successful intubation was confirmed with end-tidal carbon dioxide and auscultation. Following induction and neuromuscular blockade, the patient was ventilated with oxygen in air with isoflurane. During tracheostomy, it was noticed that cricothyroid ligament was maintaining a structural continuity between larynx and a displaced trachea which acted as a conduit before intubation. Following tracheostomy, the patient was stable and had an unremarkable recovery. Definitive surgical correction was done 1 month later.

Blunt neck trauma is uncommon but potentially life-threatening injury in the form of loss of airway. Early recognition of nature of injury is vital and presence of contusion and stridor indicates severe injury. Tailoring the technique of securing airway to each case is important. Inability to cooperate for topicalization and bleeding may obscure vision during FOB in these patients. If tracheostomy is planned under local...
anesthesia, FOB-guided airway examination may help assess the extent of airway trauma.

In our patient, an attempt to intubate with direct or video laryngoscope could have led to instrumentation of the blind pouch which was in line with larynx. Due to the presence of surgical emphysema, ultrasound had minimal role in identifying trachea. If awake FOB had failed, the only backup plan was tracheostomy which would have been technically difficult due to surgical emphysema. We conclude that in case of blunt neck trauma, gross anatomical distortion should be anticipated. If endotracheal intubation is planned to secure the airway, awake FOB should be preferred over direct/video laryngoscopy if feasible.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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How to cite this article: Sivachalam SN, Rajan S, Paul J, Kumar L. Airway management of a patient with laryngotracheal disruption following blunt neck trauma. J Anaesthesiol Clin Pharmacol 2021;37:298-9.

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Pre-anesthesia ward for optimization of co-morbid illnesses of high-risk surgical patients: The time is now

Dear Editor,

Suboptimal optimization of high-risk surgical patients leads to either cancellation of surgery or post-operative complications if taken up for surgery. More than 10% cases have been reported to be cancelled on the day of surgery.[1] Cancellation of cases imposes psychological stress to patients and their relatives along with wastage of time and resources. This is much of our concern because it also leads to a breach of trust between anesthesiologist and patients or surgical specialists and can be quite frustrating for all concerned.

Optimization of all co-morbidities can't be achieved through only a pre-anesthetic checkup (PAC) clinic, as close follow-up is always an issue. Interestingly, it is not that such co-morbid patients are not admitted in ward for optimization, they are admitted but under surgical departments, where the interest and expertise of care provider is different. Sometimes it also happens that the primary specialist, i.e., the surgeon assumes that the patient has been optimized optimally just on ground that the process of optimization has been started quite before. When anesthesiologist examines the same case, he/she finds that despite the long duration of optimization, there is no or only little improvement in co-morbid conditions. The reason behind this discrepancy is different perception and targets of optimization for surgical and anesthesia specialists. Another concern is variable preparedness and unpredictable follow-up of pre-operative orders related with medical comorbidities before surgery. In the interest of perioperative safety of comorbid patients, it is better to involve the anesthesiologist as the in-charge of optimization and not just assessor of optimization.

Looking from another angle, if we talk in terms of teaching and training of anesthesiology postgraduates, they are taught much about the theory of optimization of comorbidities, but...