Sudden unanticipated difficult airway.

Hariharan U*

Anesthesia and Intensive Care, Dr Ram Manohar Lohia Hospital and PGIMER, New Delhi, India

Keywords: Airway, Life-threatening, Temporomandibular Dysfunction, Difficult Airway Algorithm, Guidelines.

Accepted on May 15, 2019

Editorial

Sudden presentation of unanticipated difficult airway can be disastrous. Inability to open the mouth before intubation is one-such, rare, and life-threatening situation during airway management. The possible causes of this include sudden trismus, undiagnosed scleroderma, temporomandibular joint dysfunction and drug-induced masseter spasm. Failure to act in time with the right move in this scenario can be devastating with far-lasting consequences. Adequate operation theatre as well as mental preparedness to handle such surprises is the corner stone of success. Since no mouth opening is possible, direct and indirect laryngoscopy as well as supraglottic devices or oral airways are ruled out. A separate difficult airway algorithm for such tricky and out-of-the blue circumstances is the need of the hour, along with regular training programs and simulations.

Anticipated difficult intubations can be managed with meticulous preparation and readying the difficult airway cart. Pre-oxygenation, presence of an experienced anaesthesiologist, keeping advanced airway equipment, trained assistant, maintaining spontaneous respiration and availability of surgical airway can go a long way in securing a known difficult airway. Unanticipated difficult airways can pose a challenge even for the experienced airway enthusiast. Inability to open the mouth before intubation is a dangerous form of unanticipated difficult airway. Precious time should not be wasted in forcibly opening the mouth, which can cause greater chances of trauma to facial structures, temporomandibular joints and teeth. Calling for help at an early stage before oxygen desaturation sets in, is recommended. It can be divided into two scenarios: one where muscle relaxant has been given and another where relaxant has not been given. In most situations where relaxant has been given and there is inability to open the mouth, succinyl choline is the culprit. Here, a decision whether to awaken the patient and postpone the case can be taken, depending upon the prevailing circumstances. The vital goal in any situation is to maintain oxygenation and ventilation. This is the main deciding factor in finalising the line of management for securing the airway. A "Cannot Intubate, Cannot Ventilate" or CVCI situation can arise out of this particular scenario of inability to open the mouth before intubation. Failure to intubate the trachea as well as an inability to ventilate the lungs by face mask and Supraglottic devices (SAD) constitutes 'Complete ventilation failure' (CVF), and emergency cricothyroidotomy should be performed as per AIDAA (All India Difficult Airway Association, 2016) guidelines. One must be ready with plan B, plan C and plan D at all times, if one plan fails. If muscle relaxant has not been given and there is inability to open the mouth due to temporomandibular joint problem or masseter spasm or sustained teeth clenching, then it is better to maintain oxygenation and ventilation of the patient, before attempting heroic airway manoeuvres. Since mouth opening is not possible, Mac Coy laryngoscope, video laryngoscopes and Supraglottic devices (SAD) cannot be used. Any of the standard difficult airway guidelines (ASA, DAS or Indian guidelines) can be utilized, provided patient safety is given top priority.

Inability to open the mouth before intubation constitutes a rare, tricky, dangerous and challenging situation during airway management, which can be disastrous for the unprepared anaesthesiologist. Such out-of-the blue scenarios require out-of-the box thinking by the anaesthesiologist, with the ultimate goal of maintaining patient oxygenation and ventilation. Calling for expert help early, continuous high flow nasal oxygenation, nostril preparation for nasal intubation, prevention of oxygen desaturation, availability of fibreoptic bronchoscope and front of neck access equipment, low threshold to perform a needle cricothyroidotomy and proper documentation are the cornerstones of success.

*Correspondence to:

Dr Uma Hariharan Associate Professor [MBBS, DNB, MNAMS, PGDHM, FICA, CCEPC, DESA], Anesthesia and Intensive Care

Dr Ram Manohar Lohia Hospital and Post Graduate Institute of Medical Education and Research (PGIMER)

New Delhi, India Tel: +919811271093

E-mail: uma1708@gmail.com