ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 12, Issue, 10, pp.14489-14491, October, 2020

DOI: https://doi.org/10.24941/ijcr.40052.10.2020

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

ELECTIVE TRACHEOSTOMY IN A COVID PATIENT WITH CARCINOMA PALATE IN COVID INTENSIVE CARE UNIT – CLINICAL DILEMMA OF A SURGEON

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ARTICLE INFO

Article History:
Received 20th July, 2020
Received in revised form
27th August, 2020
Accepted 20th September, 2020
Published online 30th October, 2020

Key Words:
Difficult Airway,
Tracheostomy, Ca Palate,
Covid Patient.

ABSTRACT

Difficult airway is an unfortunate and a possibly fatal condition that could be encountered in an emergency situation. Basic airway knowledge and timely action need to be taken to secure an airway in such patients. Patients with difficult airway may present with a myriad of signs and symptoms including respiratory distress and stridor. Multiple methods of securing an airway are available such as endotracheal intubation (both oropharyngeal and naso-pharyngeal), supraglottic airway devices, fibre-optic intubation, cricothyrotomy and tracheostomy. The clinical dilemma surrounds the time and kind of method to me used in such a situation. We share our experience from a covid intensive care unit wherein a patient diagnosed with locally advanced carcinoma of palate of right side extending upto the midline leading to restricted mouth opening. Patient was symptomatic with breathlessness requiring non invasive ventilation. Our approach to this situation and the decision making has been explained in this article.

Citation: ***Bhaskar Musande, Neemesha Mhatre, Soorya sekar and Dr. Palak Bohra.*** **2020.** "Elective tracheostomy in a covid patient with carcinoma palate in covid Intensive Care Unit – clinical dilemma of a surgeon", *International Journal of Current Research*, 12, (10), 14489-14491.

INTRODUCTION

Airway management in a critically ill patient admitted to the intensive care unit is a basic skill that each and every doctor, health care professionals must possess. The basic knowledge in health care professionals about methods of securing airway is mandatory. Difficult airway is a fatal situation faced in many critically ill patients. The incidence of encountering a difficult airway is more common in emergency and ICU patients as compared to elective surgery. "Cant intubate and Cant ventilate" scenario is the most feared for its serious complications such as cardiopulmonary arrest and death. In this situation about 1 in 50,000 patients need surgical intervention for securing airway.(1) "European Airway Management Society and Difficult Airway Society" is one of the important societies of world, which formulates the guidelines for the doctors working in intensive care unit for evidence based decision taken in a difficult airway and revise those guidelines on regular basis. (1)

CASE

We experienced an interesting case in covid intensive care unit during the pandemic situation.

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Our patient 45 years old male a known case of locally advance carcinoma palate of right side with mass of size 20x15 cm extending to the midline of the neck, associated with another swelling on contralateral side around 7 x 7 cm extending towards the midline. Previously patient had received chemotherapy in outside cancer hospital for locally advanced ca palate. This patient was later diagnosed with covid 19 pneumonia and presented to covid casualty with complaints of breathlessness. Patient was admitted to covid intensive care unit and started on non invasive ventilation as he was not maintaining saturation with oxygen mask at 15 litres of Oxygen . Further patient deteriorated ,became drowsy and Hypotensive. On examination he had tachycardia, Hypotension and worsening hypoxia. Patient was started on Ionotropic support - inj. Noradrenaline infusion. Even though patient was on non invasive ventilation eventually need for invasive ventilation was imminent ; hence he was assessed further. On assessment of Oral cavity , patient had restricted mouth entry with a mouth opening of less than 2 cm. according to Mallampatti classification (MPC 4). Deterioration in patient's condition created a high intense environment and dilemma in the surgeon and intensive care Physician on duty. Fibre-optic intubation was attempted with no benefit. As need of the hour , decision for surgical tracheostomy was made. Though the decision making of performing tracheostomy sounded easy, the main challenges started after initiating

tracheostomy procedure. Patient a known case of locally advanced ca of palate with a huge swelling on right side extending till midline and another swelling on the left side approaching towards the midline. This swelling on the right side shifted trachea laterally towards the left and swelling in left compressed the trachea inferiorly. Palpating and localizing the trachea was difficult in this current situation. Second challenge was vascularity secondary to tumour along the line of incision and along the plane of dissection. Third challenge, patient was started on low molecular weight heparin for preventing the thrombotic events secondary to covid pneumonia, since patient D-Dimer value was raised. Second and Third challenges posed problem in visibility in field of dissection and risk of uncontrollable bleeding .Challenges were accepted for the benefit of patient. Patient and patients relative were explained about the procedure and risks behind it. Procedure was initiated after getting written and informed consent from the both patient and his relatives. Patient was ventilated with mask connected to ventilator (non invasive ventilation). Patient was made to lie in supine position with neck extended. Local anaesthesia lignocaine with adrenaline was infiltrated along the line of incision. Midline vertical incision taken 3 cm above the sternum. Deepened in layers. Care was taken not to injure any vessels and any other vital structures. Sedation was avoided till we cannulise trachea. Once trachea was reached, we made an inverted U shaped incision along the trachea and cannulated the trachea. Then patient was taken on tube ventilation and sedation was started .Then we secured the tube in position with tie. The elective decision that we had taken in this patient prevented the last minute emergency and chaos for securing the airway in this patient.

Figure 1. Patient with swelling in the right side of the neck (ca palate) and was on non-invasive ventilation

Figure 2. Infiltration of local an aesthesia following the position of the patient. Ventilation was taken care by the mask (non-invasive ventilation)

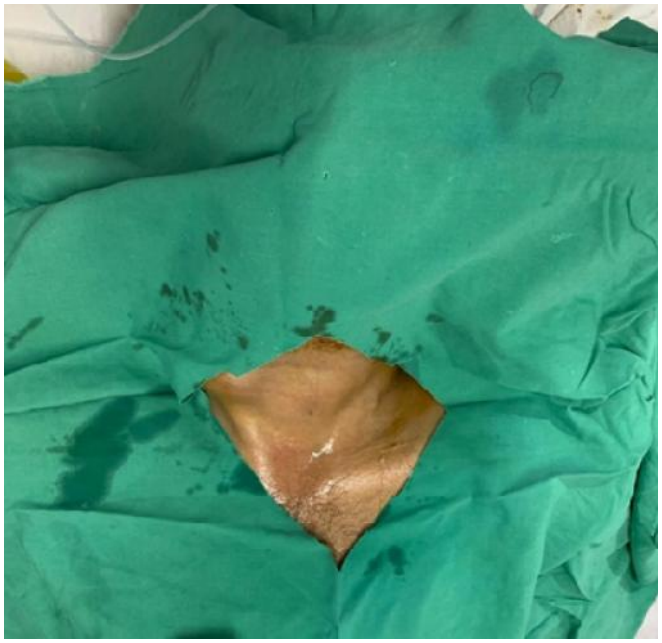
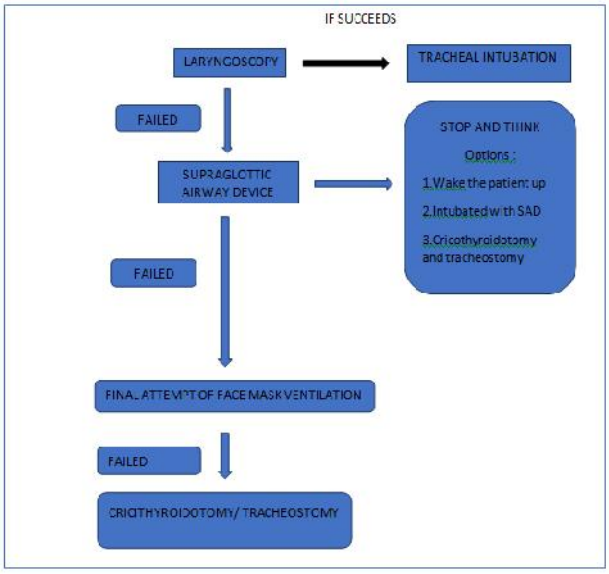


Figure 3. Asepsis maintained while performing the procedure

Figure 4. Post tracheostomy picture of the patient. Note the swelling in the right side of the neck extending to the midline and left side swelling is also appreciated from this image

DISCUSSION

Mastering the airway management technique is mandatory for all health care professional working in high risk areas such as intensive care unit, casualty and operation theatre. Many anaesthesia literatures have mentioned about various factors to be considered before securing airway for a patient, such as skills, experience, knowledge about device, technique, number of attempts, etc.[2] In a situation like Difficult Airway (DA), our ultimate aim is to secure an airway and maintain patient's oxygen saturation and hemodynamic status . There are various predictors for difficult airway. This was classified into clinical, radiological and invasive tests [3].



Though there are classified factors for DA, clinical examination of patient reveals lots of information regarding the DA compared to other factors such as the radiological and invasive test. [2,3]When it comes for securing an airway, it is classified into easy and difficult one. The difficult one has more challenges comparatively. "Can't intubate and cant ventilate" scenario is the most feared situation, as it leads to serious complications such as respiratory arrest and death. There are various methods of securing a DA.[(2)] Approach to a patient with Difficult airway, many guidelines are formulated by various societies. One such is Difficult Airway Society which has formulated the guidelines for DA. The guidelines are summarised in flowchart mentioned below.[(4)]

It has been mentioned in the literature that patient with difficult airway is managed well with fibre-optic intubation. Even at times it is difficult to achieve airway by fibre-optic intubation, then comes the role for surgically securing the airway. The options left were cricothyroidotomy and tracheostomy for securing airway. Primary tracheostomy with local anaesthesia in a conscious patient is a challenge to the surgeon performing procedure. Sedation is very minimally used or at times it is not used at all considering the chances of further worsening hypoxia in patient. So, complications while doing a tracheostomy are more compared to other airway securing procedures. It is stated that the incidence of complication in the patient who had undergone primary tracheostomy is 30 % in literature. Complications mainly depend on the factors like complexity of airway, experience of the surgeon, etc. [(5)] Major complications which occur while inserting tracheostomy tube are bleeding secondary to injury to major vessels, injury to the posterior wall of trachea, oesophageal perforation, pneumothorax and death. Surgical emphysema is also noted in 2-5 % of patients post tracheostomy[(6)]. Despite having these complications, risk has to be taken to secure airway for the patient. Tracheostomy becomes even more complicated in obese patient and in patient with short neck. Obese patients will have increased distance from skin to the tracheal rings.

Defatting tracheostomy is now followed in patients with morbid obesity, in which the fat from the neck is excised before tracheostomy. Adjustable length tracheostomy tube is also used in conditions like difficult airway.

Conclusion

Airway management or securing an airway is not limited only to anaesthesiologist and physician. It is mandatory for each and every medical professionals. DA is a condition in which one should act immediately for the betterment of the patient. Basic knowledge regarding the airway management, devices used for securing airway and methods of securing airway is must in health care professionals.

DA is a challenge to each and every doctor out there. One should be on the toes for all the challenges and emergency. The point that we want to insist from our experience is " difficult airway is a challenging situation and one must have a knowledge about securing it. Irrespective of the high-risk situation and complications behind the procedure that we plan to do, our ultimate aim is to secure the airway to prevent respiratory depression, respiratory arrest and death of the patient.

REFERENCES

1. Popovici SE, Mitre C. 2018. Difficult airway management - a constant challenge. *Rom J Anaesth Intensive Care*. 25(2):93-94.
2. Umesh G. 2017. Difficult airway: Challenges, phobias and options. *Indian J Anaesth*.61(8):611-613.
3. O' Dell K. 2015. Predictors of difficult intubation and the otolaryngology perioperative consult. Anesthesiology Clin. 33:279–90.
4. Frerk, C. V. S. Mitchell, A. F. McNarry, C. Mendonca, R. Bhagrath, A. Patel, E. P. O'Sullivan, N. M. Woodall, I. 2015. Ahmad, Difficult Airway Society intubation guidelines working group, Difficult Airway Society 2015 guidelines for management of unanticipated difficult intubation in adults, *BJA: British Journal of Anaesthesia*, Volume 115, Issue 6, December, Pages 827–848
5. Gerig, H. J., Schnider, T., & Heidegger, T. 2005. *Prophylactic percutaneous transtracheal catheterisation in the management of patients with anticipated difficult airways: a case series. Anaesthesia, 60(8), 801–805*
6. Ahuja H, Mathai AS, Chander R, Mathew AE. 2013. Case of difficult tracheostomy tube insertion: A novel yet simple solution to the dilemma. *Anesth Essays Res*. 7(3):402-404.
7. Soni S, Chacko A, Poorey VK. 2020. Fine Governance of Difficult Tracheostomy in Difficult Airway with Stridor and Respiratory Distress (published online ahead of print, 2020 Jul 21). *Indian J Otolaryngol Head Neck Surg*.1-4.

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