

ECMO Facilitated Bronchoscopic Debulking of Carinal Tumor with Near Total Obstruction of Both Main Bronchi

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Background:

Debulking of Central airway tumor with near total obstruction is a high risk procedure. Treatment modalities which include surgery, Mechanical debulking or electro-thermal ablation using rigid and/or flexible bronchoscope has been reported with variable peri-procedure complications. Here, we report a case of bronchoscopic management of carinal tumor with near total obstruction of both main bronchi using electrocautery and cryotherapy under ECMO support.

Case Report:

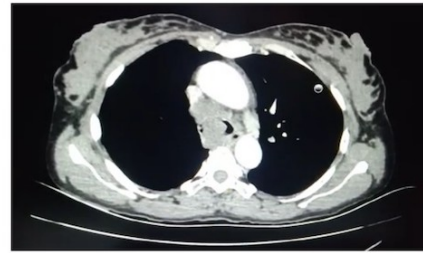
A 35-year-old female presented with 3-months history of cough and progressive breathlessness with orthopnea. At presentation, she had tachycardia, tachypnea, hypertension, decreased breath sound over right hemithorax with bilateral monophonic rhonchi. Chest x-ray revealed right middle and lower lobe collapse. CECT-thorax showed lobulated enhancing endobronchial mass lesion in carina with near complete obliteration of right and left main bronchi and obstructive collapse of right middle and lower lobe. Bronchoscopy showed a large lobulated tumor over carina extending to both main bronchi with near complete obstruction. After a multidisciplinary discussion involving pulmonologists, cardiothoracic surgeons, cardiac anaesthetist, patient was taken for bronchoscopic debulking in CTVS OT under VV-ECMO Support. Under general anaesthesia patient was intubated with a 12-mm rigid tracheoscope and connected to anaesthesia ventilator. Video-bronchoscope was introduced through rigid tracheoscope and then cryotherapy was applied over the tumor. Tumor debulking was done on both sides using electrocautery snare and cryo-extraction was done. Blunt electrocautery probe was used to further open up the obstructed left main and right main bronchi to achieve more than 60% lumen. No significant hypoxia or bleeding at debulked tumor site was noted. Patient was shifted to ECMO ICU where ECMO support was weaned on POD1 and patient was successfully extubated on POD2.

Conclusion:

Multimodality, multidisciplinary approach may be instrumental in safe management of central airway obstruction. Role of ECMO may be evaluated for avoiding procedural complications in selected cases.

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Conflict of interest : none