

NON-SURGICAL MANAGEMENT OF A LARGE IATROGENIC TRACHEAL TEAR WITH SILICONE AIRWAY 'Y' STENT

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Background:

Iatrogenic tracheal injury following endo-tracheal intubation is a rare but devastating complication. Traditional management of tracheal tear involves primary surgical repair. Non-operative management of such tracheal injury by silicone airway stent is described. The clinical scenario for which non-operative treatment considered in this case is described.

Case report:

A 58 year old male referred from a nursing home for management of post (cardiac arrest) CPR status, resulting from a massive MI leading to shock state requiring moderate doses of dopamine infusion. In ER, patient has low GCS, low blood pressure & small but significant subcutaneous emphysema in neck. Subsequently, patient got shifted to ICCU & appropriate treatment given including mechanical ventilatory support. On positive pressure ventilation, subcutaneous emphysema progressed gradually, for which subcutaneous incisions and bilateral ICD's were placed. In due course, cardiac condition stabilised and weaned off from ventilation. Post extubation, patient developed severe ineffective cough. Bronchoscopy done under sedation revealed a full thickness tear in the right side of tracheal wall in the lower 5cm, extending upto origin of right main bronchus. Thoracic surgeon consult obtained. Thoracic surgeon denies for offering surgical repair.

Airway stenting using a silicone (DUMON- Y) has planned and placed in operation theatre using rigid bronchoscopy. Patient could tolerate procedure well. He was managed with intravenous broad spectrum antibiotics to prevent mediastinitis.

Post-stenting, CT thorax done on the day of discharge revealed attempted approximation of both lacerated margins and silicone stent insitu. 6 weeks later, patient underwent virtual bronchoscopy, revealed full thickness approximation of tracheal tear. Patient subsequently operated for CABG & got discharged to home.

Conclusion:

In management of large iatrogenic tracheal tear, where primary surgical repair is not feasible, airway stenting using Silicone stents is an effective & safer alternative with a reasonable good outcome.

