

'Bubble Trouble' : Single Lung Ventilation in Tracheobronchial Injury Aided by Bronchoscopy

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INTRODUCTION

Selective or single lung ventilation involves the isolation of one lung from the other allowing independent ventilation. This approach is not common but necessary in certain thoracic injuries to isolate pathological lung from the healthy one in ensuring oxygenation and ventilation. We share such interesting case presenting at our centre.

CASE DESCRIPTION

A 32 years old gentleman was injured by cement mixer machine. Upon arrival patient's GCS E2V2M2. Patient was stable hemodynamically. Examination showed sustained large open chest wound over the right side, measuring 7cmx8cm. He had multiple ribs fracture over right side (3rd-5th ribs) with tension pneumothorax and massive hemothorax. Decision made to intubate for airway protection. 3 way occlusive dressing with 2 chest tubes inserted on the right and prophylactically one on the left. Subsequently the ETT tube was filled with blood. The right drain had bubbles continuously indicating tracheobronchial injury. Emergency bronchoscopy was performed confirmed tracheobronchial injury and complete right lung collapse noted. ETT for single lung ventilation was inserted on the left lung. The oxygen saturation could be preserved above 98% and patient was sent for thoracic surgery. After repair, patient could be weaned off to room air and discharged well.

DISCUSSION

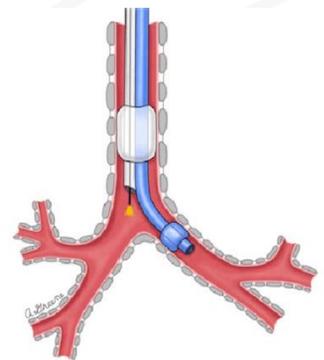
Single lung ventilation can be a live saving procedure especially in trachea bronchial injury as shown in this case. Bronchoscopy in this case confirmed the injury and helped make decision.

CONCLUSION

When dealing with a case of polytrauma with confirmed tracheobronchial injury, single lung ventilation is necessary for favourable outcome as shown in this case. Emergency department needs to have single intubation ETT available and bronchoscopy helps to assess the injuries for such decision to be made.

KEYWORDS

Bronchoscopy, single lung ventilation



REFERENCES

1. Kummer C, Netto FS, Rizoli S, et al. A review of traumatic airway injuries: potential implications for airway assessment and management. *Injury* 2007;38:27-33. 10.1016/j.injury.2006.09.002
2. Richter T, Ragaller M. Ventilation in chest trauma. *J Emerg Trauma Shock*. 2011;4:251-9. doi: 10.4103/0974-2700.82215.