

## **FLEXIBLE BRONCHOSCOPY IN EMERGENCY MEDICINE: THE NEW ERA**

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### **INTRODUCTION**

Flexible bronchoscopy plays a crucial role in emergency medicine, providing valuable diagnostic and therapeutic capabilities. It allows for direct visualization of the upper and lower airways, making it useful in managing various respiratory emergencies such as foreign body removal, airway obstructions and pulmonary disorders.

### **CASE REPORT**

A 75-year-old lady presented to the emergency department with acute respiratory distress symptoms. She has a history of chronic obstructive pulmonary disease (COPD). Initial interventions with oxygen supplementation and bronchodilators failed to provide relief. Due to persistent respiratory distress and type 2 respiratory failure, patient was intubated and put on mechanical ventilation with high ventilation setting. Chest Xray showed right middle and lower lobe collapse. Bronchoscopy lavage was performed in this patient during period of observation after noticing bedside lung ultrasound findings showed right lobar consolidation (lung hepatization). The procedure revealed thick secretions over the right middle and lower lobes which were successfully cleared. Patient showed improvement in the chest Xray post procedure. Patient was successfully extubated after 2 days and subsequently managed to wean off oxygen.

### **DISCUSSION**

Bronchoscopy is not a routine procedure in the Emergency Department. However, there is significant advocacy for its use in emergency situation. Flexible bronchoscopy is advantageous in emergency settings due to its ability to be performed at the bedside, providing real-time visualization and intervention. It is a relatively safe procedure in Emergency Department if performed by a trained personnel. This case illustrates the importance of prompt bronchoscopy in Emergency Department for patients with respiratory compromise. Early identification and intervention can lead to rapid improvement in lung expansion in patient with lung collapse, improve ventilation and oxygenation, reduce the duration of mechanical ventilation and hospital stay.

### **CONCLUSION**

Therapeutic bronchoscopy in Emergency Department is feasible. This case shows the role of bronchoscopy in optimizing patient outcomes and avoiding potential complications associated with delayed management.

**Keywords:** flexible bronchoscopy ,Emergency Medicine, respiratory compromise