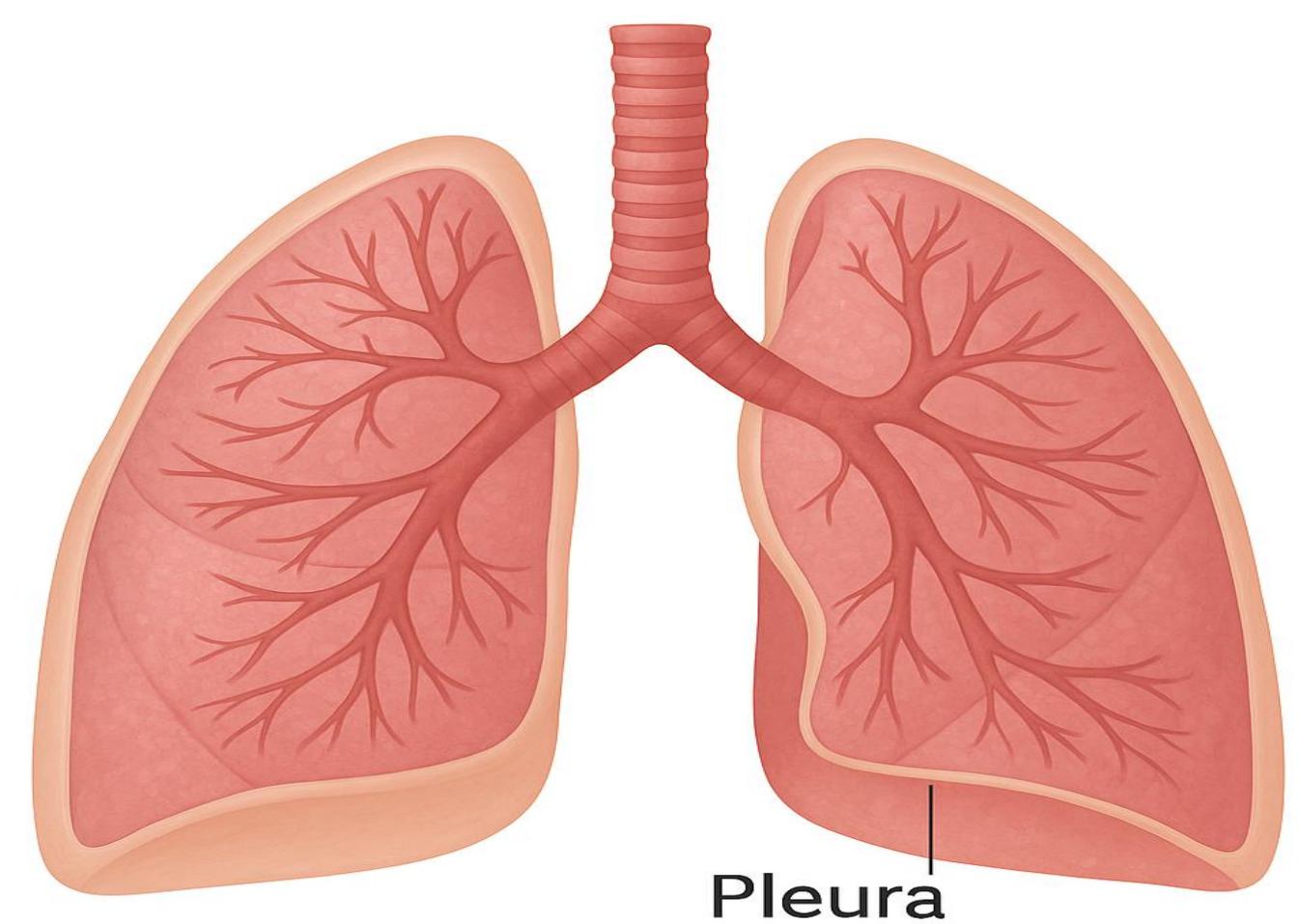


# Pneumothorax Incidence in CPAP/NIV Patients With Chronic Lung Comorbidities



## Introduction

CPAP/NIV widely used for respiratory failure. Barotrauma (including pneumothorax) is a rare but serious complication.

Aim: Evaluate incidence of pneumothorax in patients using(CPAP/NIV) with chronic lung comorbidities.

## Methods

Retrospective review (2020–May 2025).

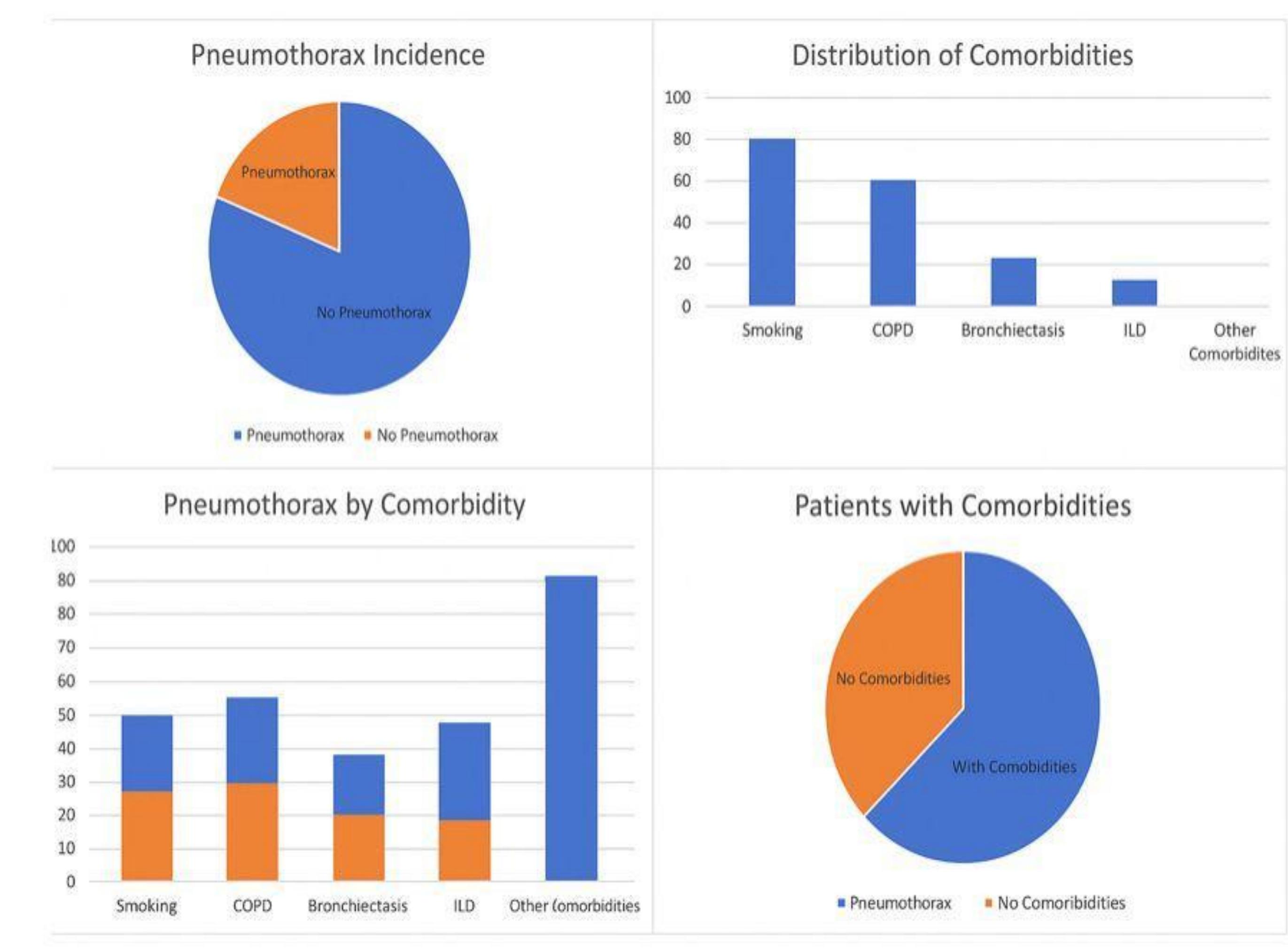
306 patients attended CPAP/NIV clinics (random sample) and acute patients.

Data: smoking, COPD, bronchiectasis, ILD, emphysema and other comorbidities.

Primary outcome: incidence of pneumothorax.

## Key findings

- 306 patients
- 2 pneumothorax cases (0.6%)
- 66.3% had  $\geq 1$  comorbidity



## Discussion

1-Pneumothorax rare despite a high burden of respiratory comorbidities. Most common risk factors in cohort: smoking and COPD.

2-Possible protective factors: standardized protocols, dedicated NIV nurses, structured clinics, optimized comorbidity management.

## Conclusion

CPAP/NIV appear SAFE even in high-risk populations.

Very low incidence of pneumothorax (0.6%).

Protocol-driven care & structured follow-up are key.

**Mohsen Mosallam, Hashim Hameed, Rana Breika, Alaa Elgohary, Ahmed Khaled, Amr BAZZARAA, Amira Shams, Omar Lotfi**

References: van den Biggelaar R, et al. (2023); European Respiratory Review (2023); European Respiratory Journal (2002); JAMA Internal Medicine (2013).

