Interstitial Lung Abnormalities in COPD: Clinical Significance and Implications

Jung-Kyu Lee

Organization Seoul National University, SMG-SNU Boramae Medical Center, Department of Internal Medicine
Current Position Associate Professor

Educational background

2012-2014 M.A., Seoul National University

Professional experience

2021-Present Associate Professor, Seoul National University, SMG-SNU Boramae Medical Center, Department of Internal Medicine
2015-2021 Assistant Professor, Seoul National University, SMG-SNU Boramae Medical Center, Department of Internal Medicine

Interstitial lung abnormalities (ILA) are radiologic findings observed in individuals without clinically diagnosed interstitial lung disease, typically identified incidentally on chest CT. They include ground-glass opacity, reticulation, traction bronchiectasis, and honeycombing. According to the Fleischner Society, ILA can be classified by distribution (subpleural/basal-predominant, upper lobe–predominant, or diffuse non-subpleural) and by the presence of fibrosis (fibrotic vs. non-fibrotic).

Recent studies indicate that 5–10% of patients with chronic obstructive pulmonary disease (COPD) exhibit ILA, particularly older smokers. In COPD, ILA is associated with distinct physiologic and prognostic implications. Unlike emphysema-predominant COPD, COPD with ILA often demonstrates preserved FEV1 but reduced FVC, reflecting a mixed obstructive–restrictive physiology. Importantly, ILA, especially fibrotic forms, are linked to increased mortality and may predispose to progression toward overt interstitial lung disease. Some reports also suggest higher risk of acute exacerbation of COPD.

Clinically, detection of ILA in COPD warrants intensified management, including smoking cessation, vaccination, and pulmonary rehabilitation. While standard inhaled therapies benefit symptoms, their effects on ILA progression remain unclear. Antifibrotic agents show promise in progressive fibrosing lung disease but lack robust evidence in COPD-ILA overlap. Regular HRCT and lung function monitoring are recommended.

ILA in COPD should not be regarded as incidental; rather, it represents an important marker of prognosis and potential therapeutic target.