Is Accelerated Lung Function Decline Associated With Lung Cancer Development?

**STUDY DESIGN**

- **Longitudinal, observational** study using epidemiological data from two population-based studies (2001 to 2019 in Korea)

- Eligible subjects were 40 to 69 years of age, followed up with **spirometry** and development of **lung cancer**

**RESULTS**

Among 8,549 subjects, **15.1% (1,287)** had rapid FEV₁ decline, and **0.6% (48)** had newly developed lung cancer

Risk factors for development of lung cancer include:

- Age \( \geq 45 \)  
  - Adj Hazard Ratio: 2.30 (1.01-5.22)

- \( \geq 30 \) pack year  
  - Adj Hazard Ratio: 2.44 (1.30-4.57)

- Rapid FEV₁ decliners  
  - Adj Hazard Ratio: 2.34 (1.28-4.28)

- WBC  
  - Adj Hazard Ratio: 1.13 (0.99-1.28)

The FEV₁ decline rate may be a potential biomarker for lung cancer development. Further study is needed to identify whether patients with rapid FEV₁ decline warrant lung cancer assessment or screening.

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