

In Patients With COPD, What Are the Risks and Protective Factors Associated With Silent Airway Mucus Plugs?

STUDY DESIGN

- Cross-sectional study of 4,364 patients with COPD who also had a CT scan assessed for mucus plugging (MP)
- Identified 627 patients with **silent MP**
- Compared with 1,151 patients with symptomatic MP and 1,112 asymptomatic patients without MP

RESULTS

Risk factors for silent MP (compared with symptomatic MP) were:

- older age (OR, 1.02)
- female sex (OR, 1.02)
- Black race (OR, 1.02)



In those without cough or phlegm, silent MP (compared with those without MP) was associated with:

- worse 6-minute walk test
- worse resting arterial oxygen saturation
- worse FEV₁ % predicted
- greater emphysema
- thicker airway walls
- higher odds of severe exacerbations

Silent mucus plugs are common in people with active tobacco use and people who previously smoked with COPD. Airway mucus plugging may be a distinct phenotype of COPD and could be an imaging biomarker.