

Making Progress Towards a COPD and Lung Nodule Protocol

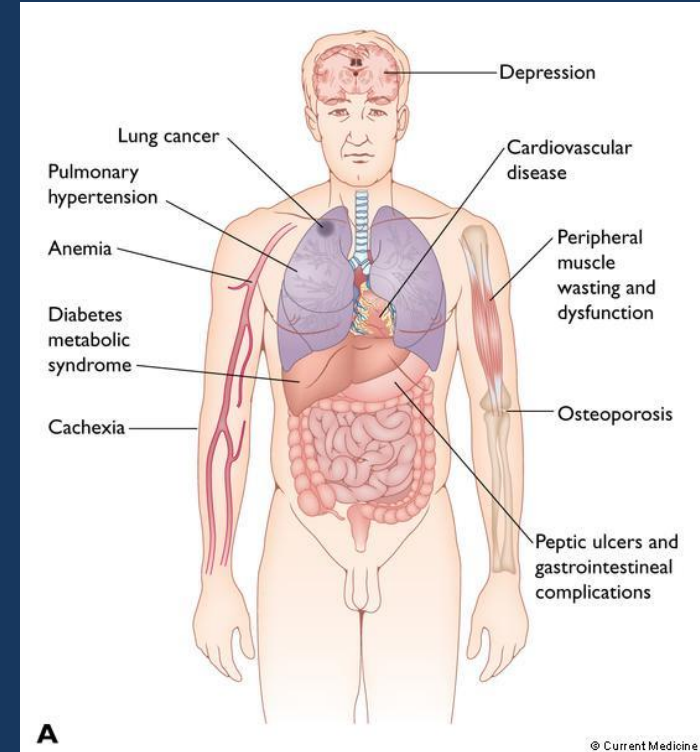
George Washko MD
Division of Pulmonary and Critical Care
Medicine
Brigham and Women's Hospital

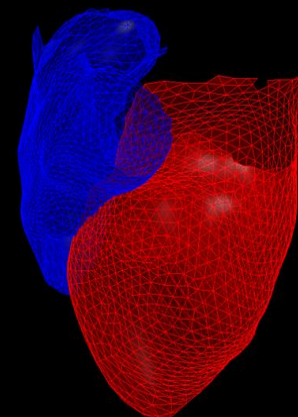
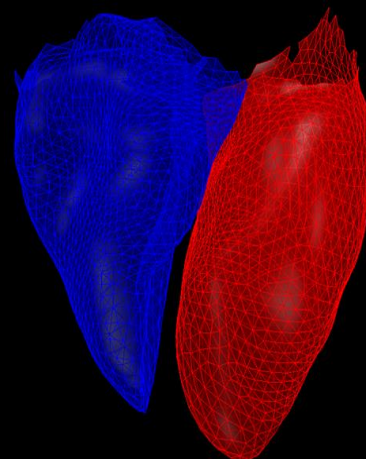
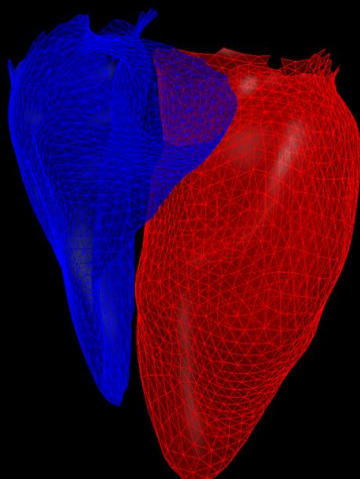
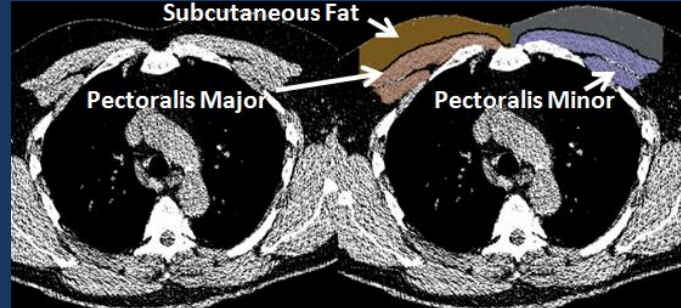
Disclosures

- Consultancies: GlaxoSmithKline, Boehringer Ingelheim, Genentech, PulmonX, CSL Behring, Vertex, Novartis
- Quantitative Imaging Solutions: Consulting group and software development for data management
- Grants: NIH, DoD, Boehringer Ingelheim (characterization of parenchymal disease in smokers)
- Spouse: Works for Biogen

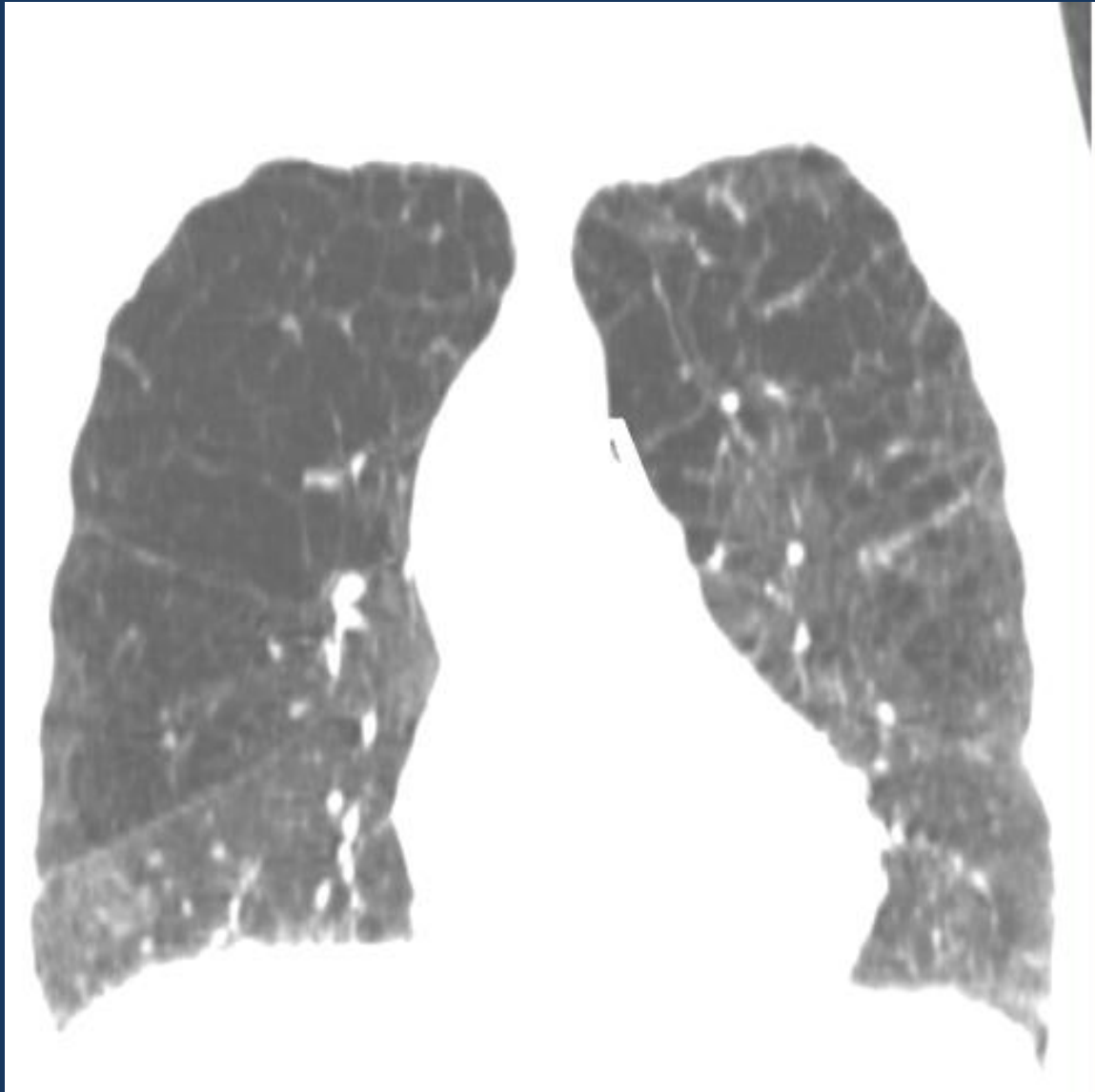
Why make progress?

- Is there clinically actionable data in the image outside of a lung nodule?
- Does a more precise assessment of those extra-nodular features improve care?
- Why isn't this already done?



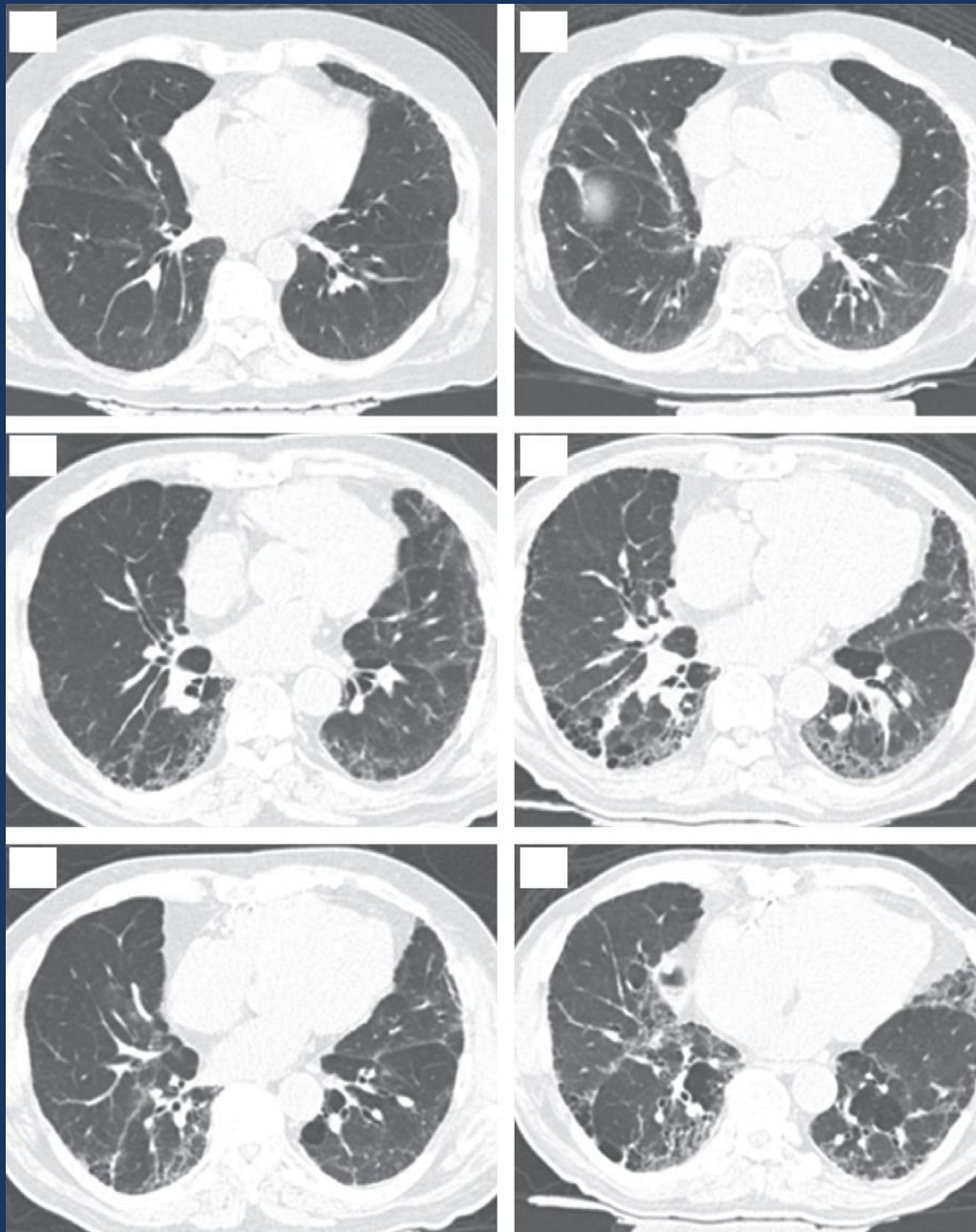


Upper Lobe Predominant Emphysema



Parenchymal Disease (continuous measures)

- Emphysema progression
 - Enable clinical trials
 - Measure of disease activity
 - Response to therapeutic intervention
 - May have some bearing on cancer risk
- Limitations:
 - No therapy to offer for progressive emphysema
- Aspirational



Parenchymal Disease (continuous measures)

- Interstitial Lung Abnormalities (ILA)
 - Biologically distinct but clinically relevant
 - 6-8% of people over the age of 50
 - Early fibrotic lung disease (subset)
 - Progressive (subset)
 - Target for therapeutic intervention
 - Nintedanib/pirfenidone
- Actionable

Summary

- There is clinically useful data in the lung cancer screening CT
- Heterogenous protocols are OK for emphysema detection (binary)
- Common lung and nodule protocol will enable emphysema treatment (aspirational)
- Common protocol will enable ILA treatment (leveraged now)