Interstitial lung disease and heart failure in a 75-year-old guitar maker





Andrew Kim D.O, Elizabeth Benge M.D., Cristian Valdez D.O., Tony Alarcon M.D., Aaron Singh D.O., Yema Jalal D.O. Institution of All Authors: Department of Internal Medicine, HCA Healthcare; Mountainview Hospital, Las Vegas, NV, USA.

Key Points

- A guitar maker with repeated exposure to harmful fumes developed interstitial lung disease
- Patient presented with shortness of breath, treated with bronchodilators and anti-muscarinic agents
- Detailed history-taking and broad differentials allowed for proper diagnosis and treatment

History of Present Illness

A 75-year-old male with history of asthma and COPD not on home oxygen presented after experiencing shortness of breath for 3 weeks. He was diagnosed with COPD 10 years ago and takes theophylline at home for treatment. He stated that he noticed his symptoms started after he had finished sanding and dyeing the wood for a guitar. He has built guitars for 15 years and uses more than 31 different products while building. He states he often does not wear a mask or any inhalation protection during this process. He smokes marijuana daily and has done so for 50 years. No history of cigarette smoking..

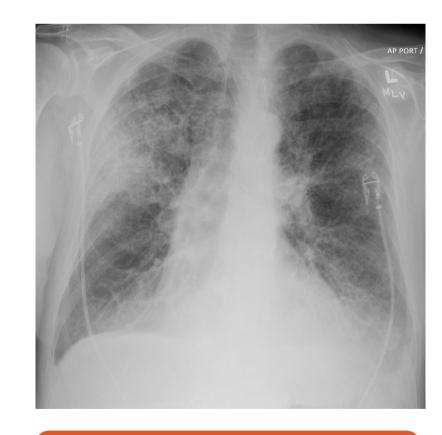
Case Description

Presented with shortness of breath, treated with standard COPD treatment

Placed on BiPAP.
Troponins were elevated and continued to increase.

Taken to cath lab - LAD ostial 100% subtotal occluded.

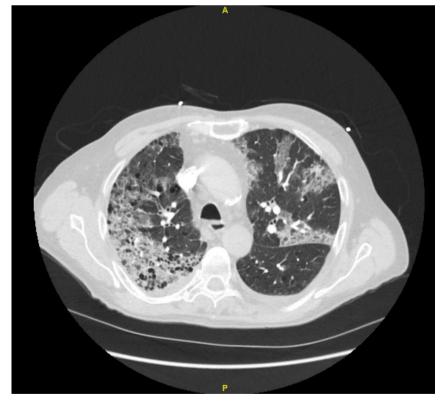
Imaging



Chest X-ray taken on admission. Note infiltration



CT chest of right middle lobe.
Note honeycombing pattern



CT chest of the right upper lobe.

Note honeycombing pattern

Discussion

Years of toxic fume inhalation and saw dust without protection likely led to interstitial lung damage

Patient was treated properly but likely had both COPD and interstitial lung disease

Shortness of breath could have masked coronary artery disease symptoms. Although patient had no chest pain, elevated troponins with worsening shortness of breath warranted further investigation, which led to diagnosis of heart failure.

References

Wood stains Information | Mount Sinai - New York. Mount Sinai Health System. https://www.mountsinai.org/health-library/poison/wood-stains

Archives of Toxicology. 1990;64(5):365-369.

doi:10.1007/BF01973457

library/poison/wood-stains
Baran S, Swietlik K, Teul I. Lung function: occupational exposure to wood dust. *European Journal of Medical Research*. 2009;14(S4). doi:10.1186/2047-783x-14-s4-14
Elovaara E, Vainio H, Aitio A. Pulmonary toxicity of inhaled styrene in acetone-, phenobarbital- and 3-methylcholanthrene-treated rats.

