Dear EOPH members,

Happy New Year! Included are the “epub ahead of print” articles from our membership for December 2015, as well as a “Quick Hit” case presented by EOPH member Leonard Go, MD. We are certain that our members are doing great things worthy of recognition. Please send us notice of these accomplishments so that we can include them in the February 2016 newsletter. We welcome any input into what else you would like to see in the newsletter. Please contact us at kbailey@unmc.edu or craig.glazer@utsouthwestern.edu with any noteworthy publications, achievements, or suggestions for future issues.

Sincerely,

Your web committee co-chairs,

Kristina Bailey and Craig Glazer
Quick Hit: Case

50 year-old male coal miner who underwent chest radiography for surveillance of lung disease. He underwent a right upper lobectomy for what he understood to be a benign lesion three years prior. He had a 2 pack-year cigarette smoking history as a teenager. He works as a roof bolter in an underground coal mine. A chest x-ray performed 8 years prior is also shown.

Which of the following is not true about the disease illustrated in the chest x-ray?

A. It may be associated with obstructive pattern on pulmonary function testing
B. It may be associated with silica dust exposure
C. The lesions may be FDG-avid on PET imaging
D. The lesions may cavitate
E. Palisading histiocytes are observed on histopathological examination

Find the answer to this Quick Hit by EOPH member Leonard Go, MD, at the end of the newsletter!
Recent publications

This section highlights some of our members’ best work in December 2015. We have only included “epub ahead of print” articles in an effort to simplify our search method while making you aware of your colleagues’ most recent work.

Air Pollution


Asthma


**Acceptability and feasibility of the 'DASH for Asthma' intervention in a randomized controlled trial pilot study.** Blonstein AC, Lv N, Camargo CA,

**COPD**

*Obesity and Functioning Among Individuals with Chronic Obstructive Pulmonary Disease (COPD).* Katz P, Iribarren C, Sanchez G, Blanc PD. COPD. 2015 Dec 18:1-8. PMID: 26683222

*Association of Inhaled Corticosteroids with Incident Pneumonia and Mortality in COPD Patients; Systematic Review and Meta-Analysis.* Festic E, Bansal V, Gupta E, Scanlon PD. COPD. 2015 Dec 8:1-15. PMID: 26645797

**Interstitial lung disease**


**Lung Cancer**


**Climate Change**


*Changing Discourses in Climate Health: An Anti-disciplinary Perspective.* Allen M, Akpinar-Elci M. Ecohealth. 2015 Dec 2. PMID: 26631382

**Ozone**

*Long-Term Ozone Exposure Increases the Risk of Developing the Acute Respiratory Distress Syndrome.* Ware LB, Zhao Z, Koyama T, May AK, Matthay MA, Lurmann FW, Balmes JR, Calfee CS. Am J Respir Crit Care Med. 2015 Dec 17. PMID: 26681363
Tobacco smoking and e-cigarettes


Population studies


Environmental and Occupational Health


Agriculture


Mechanisms


Screens, Diagnostics, and Drug Development


Healthcare Guidelines and Education

Recommended Reading from Rutgers Robert Wood Johnson Medical School Fellows. Radbel JM, Jobanputra AM, Singh J, Jagpal S, Hussain S. Am J Respir Crit Care Med. 2015 Dec 14. PMID: 26652659

**Things worth celebrating**

We know that many of you have successes to share with us. Please help us expand this section by emailing us your good news: kbailey@unmc.edu or craig.glazer@utsouthwestern.edu.

**In the News**

EOPH member Paul Blanc, MD, MSPH published a blogpost on Psychology Today in December, detailing the dangers of inhalational mercury exposure by at-home precious metal retrieval from electronics. Read the full post on Psychology Today.

**Quick Hit: Answer**

E. Palisading histiocytes are observed on histopathological examination.

**Discussion:**

The chest x-ray finding is an example of progressive massive fibrosis (PMF) in a coal miner. PMF may be seen in coal workers’ pneumoconiosis or with silicosis. The lesions are frequently found in the upper and mid-lung zones, and may result from the coalescence of smaller pneumoconiotic lesions. There may be associated with architectural distortion from volume loss and emphysema. The lesions may cavitate.

Coal workers’ pneumoconiosis had previously declined in prevalence in the United States after the institution of dust controls in coal mines with the passage of the 1969 Federal Coal Mine Health and Safety Act. However, since the late 1990s, an increase in the prevalence of CWP in general and PMF in particular have been observed [1]. Rapidly progressive pneumoconiosis (RPP) has been observed in “hot spots” in Appalachia [2], and is believed to be related to poor dust controls and increased silica dust exposure. Roof bolters (miners who drill into the rock in the mine ceiling to place bolts to prevent roof collapse) and miners who work at the coal face are believed to be at particular risk of RPP [3].

Coal miners may develop restrictive, obstructive, or mixed ventilatory defects as a result of coal mine dust exposure, and PMF is not associated with a specific pattern on pulmonary function testing. When unilateral, PMF lesions may be initially concerning for primary lung carcinomas. The use of PET imaging may not be helpful because PMF lesions are metabolically active and
may demonstrate FDG uptake [4]. Due to diagnostic uncertainty, biopsy or resection of lesions may sometimes be pursued, with the finding of coal dust, collagen, and macrophages with areas of necrosis [5]. Endarteritis and invasion of pulmonary vessels with fibrous tissue are typically also observed.

References


Send us your interesting cases

The web committee is currently soliciting interesting pulmonary cases with an EOPH focus for additional Quick Hits. These cases will be posted on the website and highlighted in this newsletter. They will be peer reviewed prior to acceptance, so this is a good opportunity for your trainees. kbailey@unmc.edu or craig.glazer@utsouthwestern.edu.