

## Letter from the Editor: Bonus Quiz



This Letter from the Editor deviates from priors in that it doesn't follow the theme of the issue. Anyone practicing general radiology needs to maintain skills in chest imaging. The following multiple choice questions constitute bonus material that tests the reader's knowledge of chest imaging.

I thank Drs. Mulcahy and Porrino for assembling an excellent review of musculoskeletal imaging, which I know will

be valuable to general radiologists and those specializing in musculoskeletal imaging (Fig. 1–8).

1. What is the most likely diagnosis?
  - A. Lymphangitic carcinomatosis
  - B. Kaposi sarcoma
  - C. Pulmonary edema
  - D. Lymphoid interstitial pneumonia

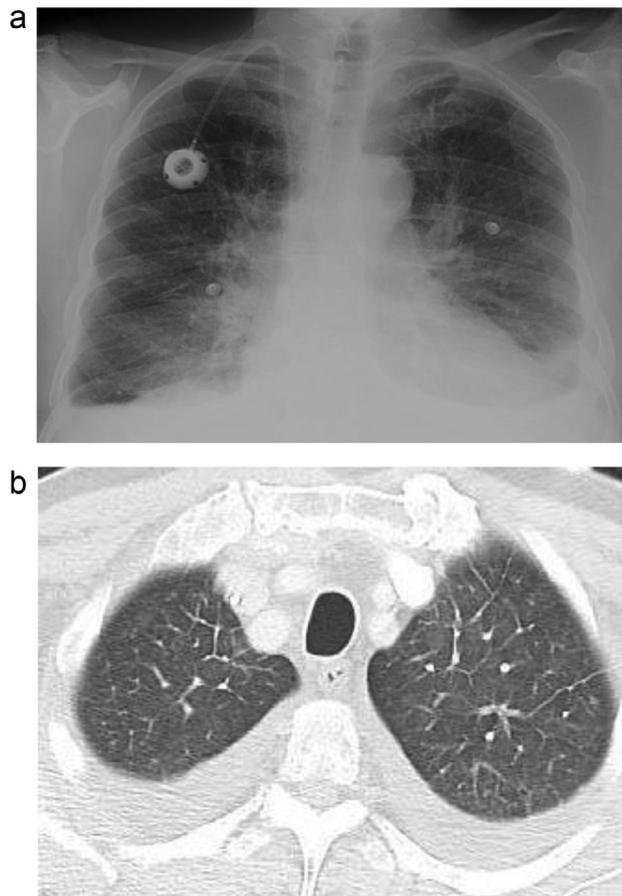
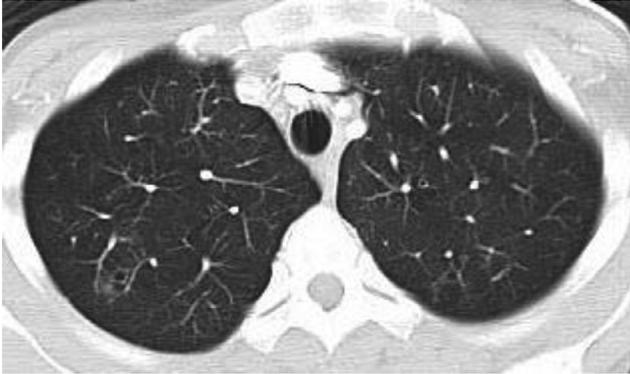


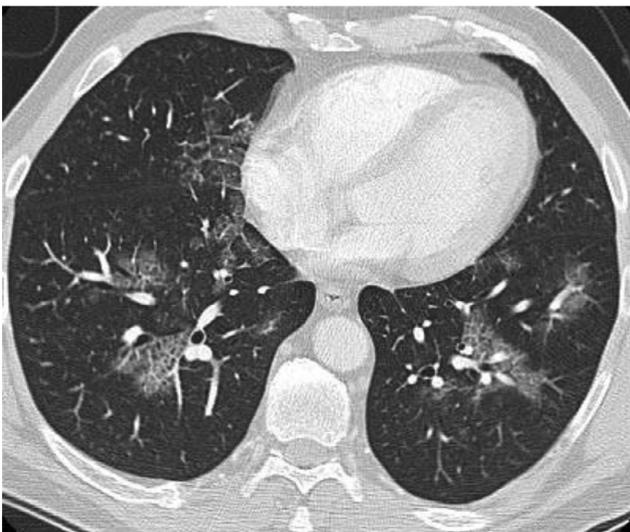
Fig. 1 a, b.

2. What is the most likely diagnosis?
- A. *Pneumocystis* pneumonia
  - B. Emphysema
  - C. Sarcoidosis
  - D. Cystic fibrosis



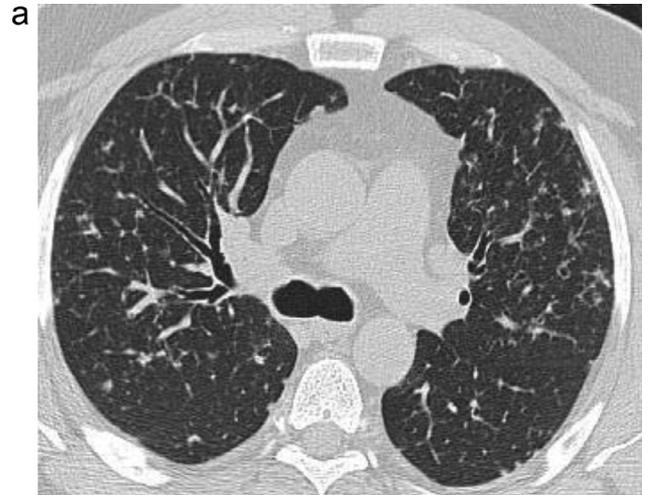
**Fig. 2**

3. What is the most likely diagnosis?
- A. Sarcoidosis
  - B. Pulmonary alveolar proteinosis
  - C. Adenocarcinoma in situ (formerly BAC)
  - D. Respiratory bronchiolitis



**Fig. 3**

4. What is the most likely diagnosis?
- A. Lymphangioleiomyomatosis
  - B. *Pneumocystis* pneumonia
  - C. Lymphoid interstitial pneumonia
  - D. Langerhan cell histiocytosis



**Fig. 4** a, b.

- 5. What is the most likely diagnosis?
  - A. Hypersensitivity pneumonitis
  - B. Sarcoidosis
  - C. *Mycobacterium tuberculosis*
  - D. Silicosis

- 6. What sign is shown?
  - A. Hampton hump
  - B. Hilum overlay
  - C. Ring around the artery
  - D. Knuckle

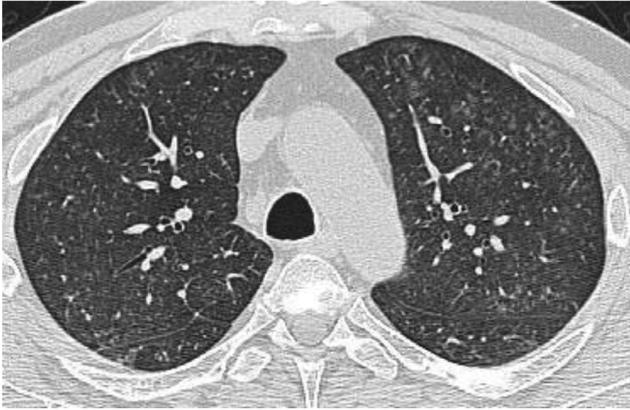


Fig. 5

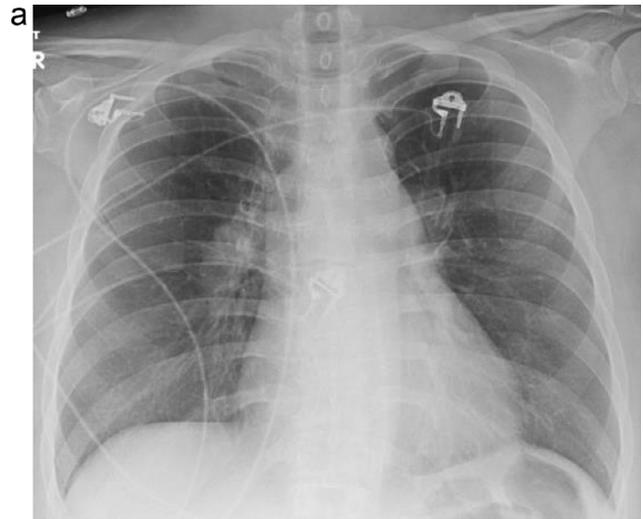
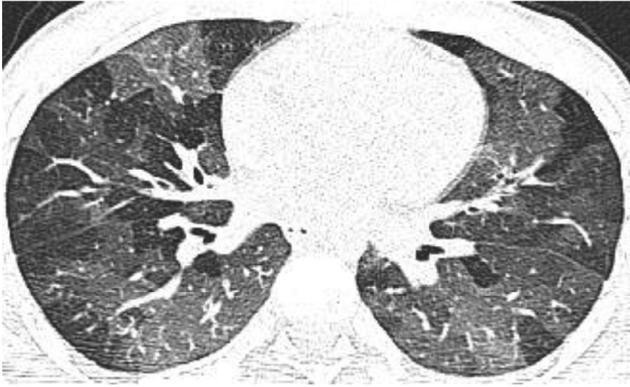


Fig. 6 a, b.

7. What is the most likely diagnosis?
- A. Constrictive bronchiolitis
  - B. Sarcoidosis
  - C. Respiratory bronchiolitis
  - D. Lymphangioliomyomatosis



**Fig. 7**

8. What radiologic sign is shown?
- A. Fallen lung
  - B. Continuous diaphragm
  - C. Flat waist
  - D. Hilar overlay



**Fig. 8**

## Answers

1. C. Pulmonary edema. The chest radiograph shows an enlarged cardiac silhouette, bilateral pleural effusions, and indistinct pulmonary vasculature. The CT image shows smooth septal thickening, ground glass opacity, and plural effusions.
2. A. *Pneumocystis* pneumonia. The CT scan shows small cysts in the posterior upper lobes, surrounded by faint areas of ground glass opacity.
3. B. Pulmonary alveolar proteinosis. The CT scan shows multifocal areas of ground glass opacity associated with septal thickening (“crazy paving”).
4. D. Langerhan cell histiocytosis. The CT scan shows upper lobe small thin-walled cysts and small nodules.
5. A. Hypersensitivity pneumonitis. The CT scan shows numerous small ground glass nodules in a centrilobular distribution.
6. D. Knuckle. The CXR shows an enlarged right hilum, due to an enlarged proximal right pulmonary artery with abrupt peripheral tapering, creating the knuckle sign. The CT scan shows an enlarged right pulmonary artery that is filled with thrombus.
7. A. Constrictive bronchiolitis. The CT scan, performed during exhalation, shows a mosaic pattern of lung attenuation. The more lucent areas of lung are abnormal and reflect air trapping secondary to small airway disease.
8. B. Continuous diaphragm. The CXR shows continuous lucency between the heart and the diaphragm, reflecting pneumomediastinum.

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