## IMAGES IN EMERGENCY MEDICINE

Infectious Disease



# Hemoptysis in an elderly woman

# Shih-Chao Chien MD<sup>1</sup> Yu-Jang Su MD<sup>1,2</sup>

- <sup>1</sup> Poison Center, Department of Emergency Medicine, MacKay Memorial Hospital, Taipei, Taiwan
- <sup>2</sup> Department of Medicine, MacKay Medical College, New Taipei City, Taiwan

#### Correspondence

Yu-Jang Su, MD, No. 92, Sec 2, North Chung Shan Rd. Taipei 10449. Taiwan. Email: yisu.5885@mmh.org.tw

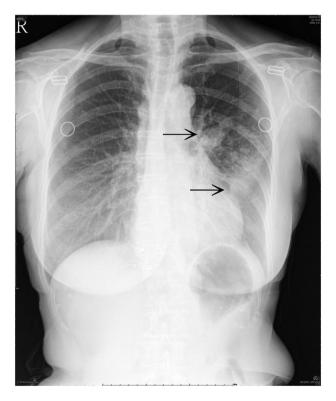
A 70-year-old woman presented with hemoptysis for 1 day after consuming red-colored dragon fruit. She had no history of smoking, chest pain, productive purulent sputum, fever, long-term immobilization, or history of any medical disease. On arrival, the vital signs at triage were as follows: body temperature  $36.3^{\circ}$ C, heart rate 104 beats/min, respiratory rate 18/min, and blood pressure 132/66 mmHg. There were clear and symmetric breathing sounds on auscultation. The patient's blood tests results revealed white blood cell count 5000/ $\mu$ L, hemoglobin level 12.6 g/dL, platelet count 192,000/ $\mu$ L, prothrombin time 10.7 seconds, and activated partial thromboplastin time 24.7 seconds with international normalized ratio 1.05. The Chest X Ray showed as Figure 1 and for further assessment, computed tomography (Figure 2) was performed.

# 1 | DIAGNOSIS

Tuberculoma. We first performed sputum acid fast staining and tuberculosis (TB) culture. TB polymerase chain reaction revealed a positive result. We prescribed tranexamic acid (250 mg) 3 times per day and initiated anti-TB treatment: ethambutol 800 mg, pyrazinamide 1000 mg, rifampicin 450 mg, and isoniazid 300 mg per day. The patient's hemoptysis gradually improved in the clinic. Tracing her medical record, no other family member had reported a history of TB nor had other members followed up at the pulmonary medicine clinic.

Tuberculoma appears as a mass-like lesion ranging from 0.5 to 4 cm or greater in diameter.

Satellite nodules are found in 80% of the cases. Twenty to 30% of tuberculomas were eventually calcified. In our case, all the features were found. <sup>1,2</sup> In addition, the tree-in-bud sign was found in multiple lobes, which is usually found in patients with TB. It can mimic



**FIGURE 1** Two ill-defined radiopacities with air bronchogram in the left lower lung (LLL) field and the left hilar region on chest radiograph

lung malignancy in clinical practice. In lung malignancy, larger nodules are found, with relatively solid versus ground-glass opacities in higher sensitivities.<sup>3</sup>

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2020 The Authors. JACEP Open published by Wiley Periodicals LLC on behalf of American College of Emergency Physicians.

1774



**FIGURE 2** Contrast-enhanced computed tomographic scan of the lung and mediastinum revealed a 2.4 cm hypodense nodule with central air densities involving the superior segment of the left lower lung (LLL), with small nodules and perifocal micronodules involving both the superior segment of LLL and the apicoposterior segment of the left upper lung

### REFERENCES

- Lee JY, Lee KS, Jung KJ, et al. Pulmonary tuberculosis: CT and pathologic correlation. J Comput Assist Tomogr. 2000;24(5):691–698.
- 2. Restrepo CS, Katre R, Mumbower A. Imaging manifestations of thoracic tuberculosis. *Radiol Clin North Am.* 2016;54(3):453–473.
- Vlahos I, Stefanidis K, Sheard S, Nair A, Sayer C, Moser J. Lung cancer screening: nodule identification and characterization. *Transl Lung Cancer Res.* 2018;7(3):288–303.

How to cite this article: Chien S-C, Su Y-J. Hemoptysis in an elderly woman. *JACEP Open*. 2020;1:1774–1775. https://doi.org/10.1002/emp2.12319