



Visual Case Discussion

An elderly woman with left shoulder mass

Ching Shing^{a,*}, Lam Yim Kwan^b^a Department of Medicine and Geriatrics, United Christian Hospital, Hong Kong, China^b Division of Medical Oncology, Department of Medicine and Geriatrics, United Christian Hospital, Hong Kong, China

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An 83-year-old woman presented to the emergency department with left shoulder pain for 10 days. She never smoked. On examination, blood pressure 128/68 mmHg, pulse 77 beats per minute. A bony hard mass was palpable at the left clavicle. There was no cervical lymphadenopathy. A chest radiograph was taken (Fig. 1). The chest radiograph shows the left clavicle being replaced by a large, irregular mass with speckled calcification. A spiculated mass is noted in the left upper lobe, and the mediastinum appears widened with the trachea deviating to the right consistent with mediastinal lymphadenopathy, which is confirmed on positron emission tomography (PET) scan. Biopsy of the clavicular mass revealed metastatic adenocarcinoma. The patient declined all treatment and was referred to hospice care. Less than 10% of lung cancer is operable on diagnosis. Lung mass that is closely related to the mediastinum or lung hila is easily missed on chest radiograph, so is that in the retrocardiac area.¹ In addition to the lungs, the bones may provide important hints to diagnosis.

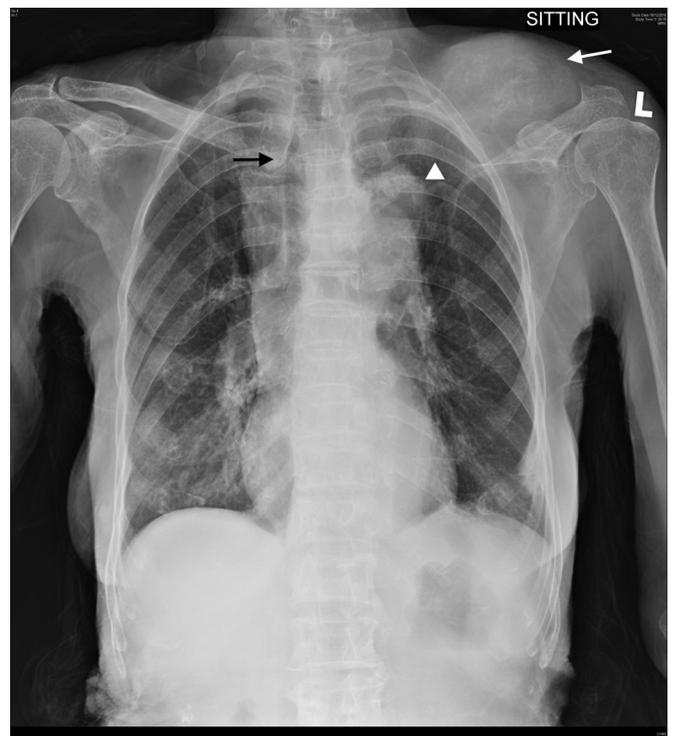


Fig. 1. Chest radiograph of the patient showing the left clavicle being replaced by a large, irregular mass with speckled calcification (arrow), and a left upper lobe mass (arrowhead); the trachea is deviated to the right (black arrow).

* Corresponding author.

E-mail address: csa698@ha.org.hk (S. Ching).

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.visj.2019.100594](https://doi.org/10.1016/j.visj.2019.100594).

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Questions

1. Which of the following is the least likely complication from a left upper lobe lung adenocarcinoma?
 - a. Left atrial mass
 - b. Superior vena cava obstruction
 - c. Cardiac tamponade
 - d. Tracheal stenosis
2. Which of the following physical signs is most likely present in this patient?
 - a. Distended neck veins
 - b. Muffled heart sounds
 - c. Pulsus paradoxus
 - d. Horner syndrome

Answers

1. Superior vena cava obstruction. Explanation: even with metastatic mediastinal lymphadenopathy, superior vena cava obstruction is uncommon for a left upper lobe lung adenocarcinoma.¹ Pancoast tumor and lymphomas are more common causes.
2. Horner syndrome. Explanation: The presence of tracheal deviation to the right indicates lymphadenopathy involving left upper mediastinum that is in close proximity to the left sympathetic ganglion, which, when compressed, causes ipsilateral Horner syndrome, characterized by a triad of miosis, ptosis and anhidrosis.² The cardiac silhouette is not enlarged making cardiac tamponade unlikely, therefore both muffled heart sounds and pulsus paradoxus, both of which are signs of cardiac tamponade, are not expected to be present. Superior vena cava obstruction is rare in left lung adenocarcinoma,³ making distended neck veins unlikely.