

Clinical Image

Asymptomatic acute pulmonary embolism in a patient with a delayed pulmonary artery stump thrombosis*



Tromboembolismo pulmonar agudo asintomático en paciente con trombosis diferida del muñón de una arteria pulmonar

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We report the case of a 78-year-old patient with a history of lung cancer treated by surgery, who had a local relapse 2 years later (Fig. 1a). This recurrence was treated with radiation therapy, and the patient responded favorably. A follow-up radiological study performed 1 year later revealed an apparently chronic pulmonary

artery stump thrombosis in the right lower lobe extending to the intermediate artery (Fig. 1B). Since the patient had no symptoms and venous thrombosis in the lower limbs was ruled out by Doppler ultrasound, we decided not to initiate anticoagulation. Another radiological follow-up performed 18 months later revealed an inci-

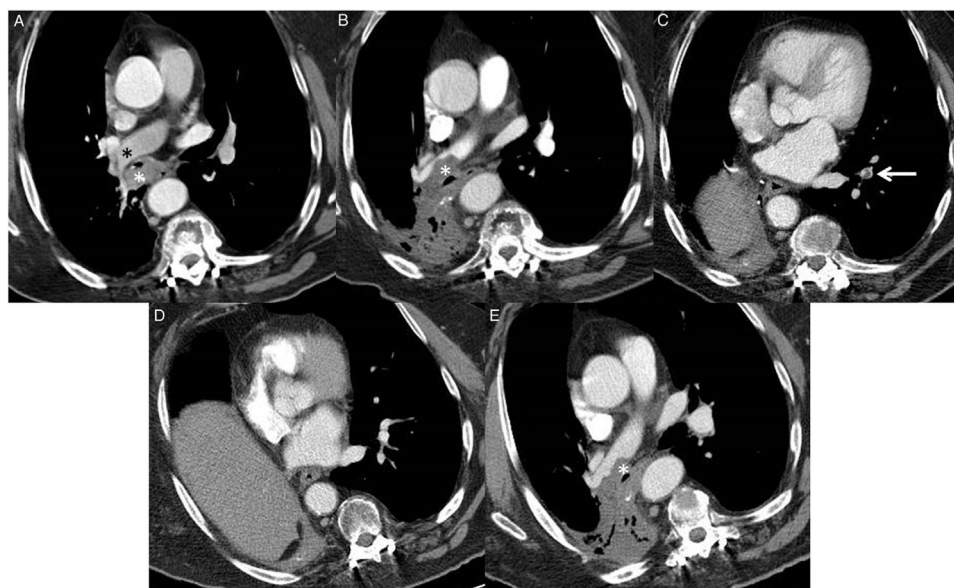


Figure 1. Chest CT images following administration of intravenous contrast, axial plane and mediastinal window. A) Chest CT image obtained 2 years after thoracic surgery (right inferior lobectomy) showing tumor recurrence (white asterisk) and patent intermediate pulmonary artery (black asterisk). B) Chest CT image obtained 12 months after radiation therapy, identifying an eccentric filling defect that forms obtuse angles in the right lower lobe artery stump with extension proximal to the intermediate artery (asterisk). C) Chest CT image obtained 18 months after image B, showing a central filling defect in a segmental artery in the left lower lobe (arrow), consistent with acute PE. D and E) Chest CT images obtained 6 months after image C, which showed resolved PE but persistent pulmonary artery stump thrombosis (asterisk).

☆ Please cite this article as: Gorospe-Sarasúa L, Martín-Martín M, Mirambeaux-Villanova RM. Tromboembolismo pulmonar agudo asintomático en paciente con trombosis diferida del muñón de una arteria pulmonar. Arch Bronconeumol. 2021;57:699–700.

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dental finding of multiple filling defects in several left pulmonary arteries, associated with acute pulmonary embolism (PE) (Fig. 1c), which resolved after anticoagulant therapy (Fig. 1D). However, the pulmonary artery stump thrombosis persisted (Fig. 1E), so it was agreed that anticoagulation would continue indefinitely.

Pulmonary artery stump thrombosis is a unusual complication that is often described in patients undergoing thoracic surgery (pneumonectomy or lobectomy), but rarely documented in patients receiving radiation therapy¹. The natural history of pulmonary artery stump thrombosis is generally favorable and the need for anticoagulant treatment is controversial². Our case is interesting for several reasons: 1) delayed pulmonary artery stump

thrombosis was detected after radiation therapy of a late local recurrence of lung cancer; 2) the patient was asymptomatic at the time of the incidental finding of PE; and 3) anticoagulant therapy resolved the PE, but not the pulmonary artery stump thrombosis.

References

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