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Medical Imagery

Right Lung Masses

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A 48-year-old female with medical history of old ischemic stroke, visited the emergency department with sudden left side weakness and dysarthria 30 minutes before arrival. Neurological examination revealed reduced muscle power of 4/5 for left upper limb and left lower limb respectively. Computed tomography of the brain showed no intracranial hemorrhage. Routine chest x-ray incidentally revealed multiple nodular opacities over right lower lung field (Figure 1A). Computed tomography of the chest showed dilated vascular structure with abnormal communication between the pulmonary arteries and the pulmonary vein, favored right pulmonary arteriovenous malformation (PAVM) (Figure 1B). Chest Surgeon suggests embolotherapy but patient refused and discharged under stable condition , scheduled for outpatient follow-up.

Pulmonary arteriovenous malformations (PAVMs) are rare vascular anomalities of the lung and defined as abnormal communications between pulmonary arteries and veins with unknown etiology and pathogenesis. Around 70% of PAVMs are associated with hereditary hemorrhagic telangiectasia (HHT), a genetic disorder with arteriovenous malformations in the skin, mucous membranes, and visceral organs.[1] It can be classified as simple type with a single feeding and draining vessel (majority), complex type with multiple feeding arteries or draining veins (-20%), or mixed type (rare -5%).[2,3] Abnormally dilated vessels provide a continuous right-to-left shunt in which increases the risk of paradoxical embolism or transient ischemic attacks. Transcatheter percutaneous embolotherapy is the current preferred treatment for majority of patients with a PAVM over 3 mm in diameter. Surgical resection of PAVMs is indicated in patients who fail embolotherapy, develop serious bleeding complication despite embolotherapy, have intrapleural rupture of the PAVM, or have untreatable contrast allergy and lesions not amenable to embolotherapy.[4]

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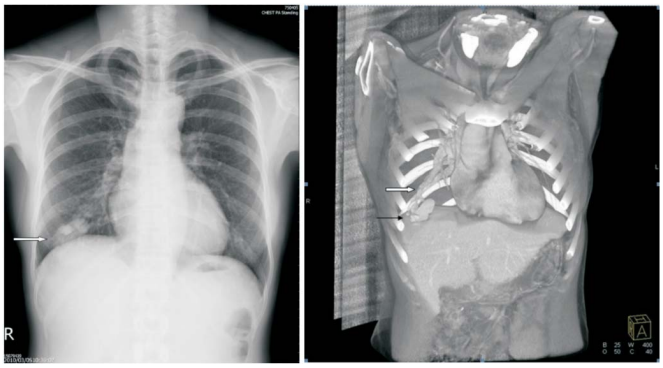

Figure 1. (A) Chest radiography shows multiple nodular opacities over right lower lung field (Arrow). (B) Three-dimensional rendering computed tomography of the chest shows dilated vascular structure with abnormal communication between the pulmonary arteries (White arrow) and the pulmonary vein (Black arrow), favored right pulmonary arteriovenous malformation (PAVM).

Conflict of interests

Denied.

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