Imaging Review of Pulmonary Artery Mass Presenting Dyspnea

Joseph Dominic N. Lagman, MD

Introduction ---Pulmonary artery sarcoma is a rare tumor of the cardiovascular system. In many instances, the diagnosis is difficult and delayed, established only after sarcoma-like primary lung malignancies and metastatic disease have been excluded.

Case --- Patient is a 56-year old Filipino female, non-hypertensive and non-asthmatic, but diagnosed to have DM type II and maintained on insulin. Family history is unremarkable. She is a non-smoker, non-alcoholic with no known allergies. History of present illness started two months prior to admission when she experienced shortness of breath on daily activities which progressed until she experienced dyspnea even at rest accompanied by orthopnea. She was noted to have facial edema and bipedal edema with abdominal enlargement. The patient was subsequently admitted and 2DECHO was done revealing a mass at the main pulmonary artery. Further work-up with CT scan angiogram of the chest showed a large enhancing intramural mass in the main pulmonary artery segment extending to the proximal right and left pulmonary arteries. Primary consideration is neoplasm (sarcoma?) with multiple pulmonary nodules most likely metastasis.

Conclusion --- Primary sarcomas of the pulmonary artery are uncommon. The clinical presentation is usually that of embolic lung disease. CT or MRI may show expansion of the pulmonary artery by a soft tissue mass which may be associated with regional or global ipsilateral lung oligemia, pulmonary infarction or peripheral pulmonary nodules. Gadolinium-enhanced magnetic resonance imaging shows a heterogenous enhancing filling defect of pulmonary artery and is helpful in differentiating vascular neoplasm from organizing thromboemboli. Survival from initial presentation is 18-23 months with surgical correction and mean survival of 10 months as compared to those without surgery which is 2 months. The role of chemotherapy and radiation therapy in management of patients with pulmonary artery sarcomas remains unclear. ***Phil Heart Center J 2012;16:89.***