Case Report
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Incidental pulmonary embolism: A Case Report

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Abstract

Pulmonary embolism (PE) is a common clinical condition that generally presents with acute dyspnea, pleuritic chest pain, cough, hemoptysis, tachypnea, tachycardia and hypoxia. Incidental pulmonary embolism (IPE) is defined as an unsuspected filling defect in the pulmonary arteries identified on CT imaging performed for another indication. This report describes a case of Incidental pulmonary embolism (IPE) detected by CT imaging during the follow-up of a 34-year-old male patient who applied to the internal medicine outpatient clinic with weight loss and gastrointestinal system complaints.

Keywords: Pulmonary embolism, incidental pulmonary embolism, emergency medicine

Introduction

Pulmonary embolism (PE) is a common clinical condition observed in an emergency department (1). It generally presents with acute dyspnea and pleuritic chest pain (1,2). Cough, hemoptysis, signs of deep venous thrombosis (DVT) ,tachypnoea, tachycardia and hypoxia are other clinical symptoms. Surgery, acute and chronic medical illness, malignancy, pregnancy, oral contraceptive pill, hormone replacement therapy, thrombophilia, body mass index >30 kg/m2, venous stasis/varicose veins, past history of deep venous thrombosis or pulmonary embolism, prolonged immobilization/travel are the risk factors of PE (2). The Wells Score is an universal guideline to determine the probability of PE (1). Computed tomography (CT) pulmonary angiography (PA) are the most commonly used definitive imaging techniques in PE (2). Incidental pulmonary embolism (IPE) is described as a filling defect in pulmonary arteries identified on CT scans performed for another indication (3,4). The exact prevalence of IPE is uncertain and it varies among different patient groups. However, the prevalence was significantly higher in patients with high-risk VTE factors such as cancer (3.1%).

Case Report

A 34-year-old male patient applied to the internal medicine outpatient clinic with complaints of weight loss and going to the toilet immediately after a meal. The patient has lost 15 kilos in the last 6 months. After CT, the patient was admitted to the emergency department with the diagnosis of incidental pulmonary embolism. In his family history, her mother has diabetes and cirrhosis, her father has hypertension and liver cyst. Her grandfather has pancreatic cancer and her uncle has lung cancer. There was no distinctive feature in his medical history except smoking 10 packs/year. His body temperature was 37, blood pressure was 120/70 mmHg, heart rate was 106 beats/min, respiratory rate was 19/min, SpO2 was 99%, Glasgow Coma Scale was 15 points.

On physical examination, the respiratory sounds were bronchovesicular, he had hepatomegaly, he had varicose veins on his ankle. Other system examinations were normal.

In the venous gas examination of the patient, pH was 7.421, pCo2 was 46.7 and pO2 was 39.2. In the laboratory; the white blood cell count was 6,94 10*3 /uL, the hemoglobin value was 14.5 g/dl, and the platelet count was 376 10*3 / uL. Angiotensin converting enzyme in serum was 46 U/L. In the imagings of the patient, in the computed tomography of the thorax performed on March 24, contrast filling defect areas compatible with embolism were observed in the right main pulmonary artery and its branches. There are subpleural diffuse reticular densities around the majo fissure in the upper lobe apical parts of both lungs and in the lower lobe superior segment localizations, and paraseptal emphysematous changes and subpleural bulla formation in the apical parts. Clexane 0.6 2*1 was started as medical

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Figure 1: Pulmonary embolism

treatment. The patient was admitted to the internal medicine service from the emergency service for follow-up (Figure 1)

Discussion

Incidental pulmonary embolism (PE) is a frequent finding on routine computed tomography (CT) scans of the chest, occurring in 1.1% of coronary CT scans and 3.6% of oncological CT scans (5). Despite these CT scans having substandard contrast enhancement and have not performed with committed PE protocol Incidental pulmonary emboly was diagnosed accurately. The rate of incidental pulmonary embolism has increased as access to more advanced computerized tomography becomes easier.

Embolic load in incidental PE is lower than symptomatic PE but according to observational studies, the risk of recurrent venous thrombotic disease and mortality are similar to symptomatic PE.

Although the term IPE is defined as silent PE, in an updated analysis with 70 patients and 137 controls, shortness of breath and fatigue remained significantly more prevalent among the IPE cases than among controls. IPE is a compelling clinical condition and there is inadequate data on how to treat these patients (3).

There is a general opinion-based recommendation is to use the same treatment strategy for patients with IPE and symptomatic PE because of the similar prognosis. However, the 2016 American College of Chest Physicians guideline advocate no treatment for low-risk patients with isolated subsegmental PE, in cases of normal bilateral ultrasonography of the legs (5)The major altercation for this suggestion is that a diagnosis of subsegmental PE is more likely to be a false-positive finding than PE located in segmental or more proximal pulmonary arteries, and presumably, DVT is the cause of 'true' subsegmental PE.

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