

## PAPER DETAILS

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# Young Patient Applying To Emergency Room With Complaint Of Syncope

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## Abstract

In this case report, the clinical course of a 30-year-old male patient who presented to the emergency department with complaints of fainting and urinary incontinence will be explained.

Our aim is: firstly, the anamnesis given by the patients in the emergency department, which leads us to central pathology with the complaint of coming to the emergency department, but whose pulmonary pathology is detected as a result of detailed and persistent anamnesis, is taken in detail even if the patients do not care. In this way, pathology will be reached more quickly. The second is; It is not to be ignored that vein thromboses from superficial veins can cause pulmonary embolism even in young patients with no additional disease and ideal body mass index.

## Introduction

An important theory describing the pathogenesis of venous thromboembolism (VTE), often referred to as the trio of Virchow<sup>1,2</sup>, predicts that VTE occurs as a result of:

- Stasis in the blood flow
- Vascular endothelial injury
- Coagulopathies

Most emboli are thought to originate from the lower extremity proximal vessels (iliac, femoral, saphenous, and popliteal vein), and over 50 percent of patients with deep vein thrombosis (DVT) are present in the proximal veins simultaneously.<sup>3,4</sup>

In the superficial veins of the lower limbs, phlebitis and thrombosis are usually benign and self-limiting; however, deep venous thrombosis (DVT) and even pulmonary embolism (PE) may occur in the case of larger axial vessels, such as large saphenous or small saphenous vessels.<sup>5,6</sup>

## Case

30-year-old male patient with our emergency department with syncope, eyes darkening simultaneously was admitted with complaints of urinary incontinence. In the CV of the patient with a body mass index of 25.4, 6 months ago, he had mild head trauma, no additional disease, he did not use

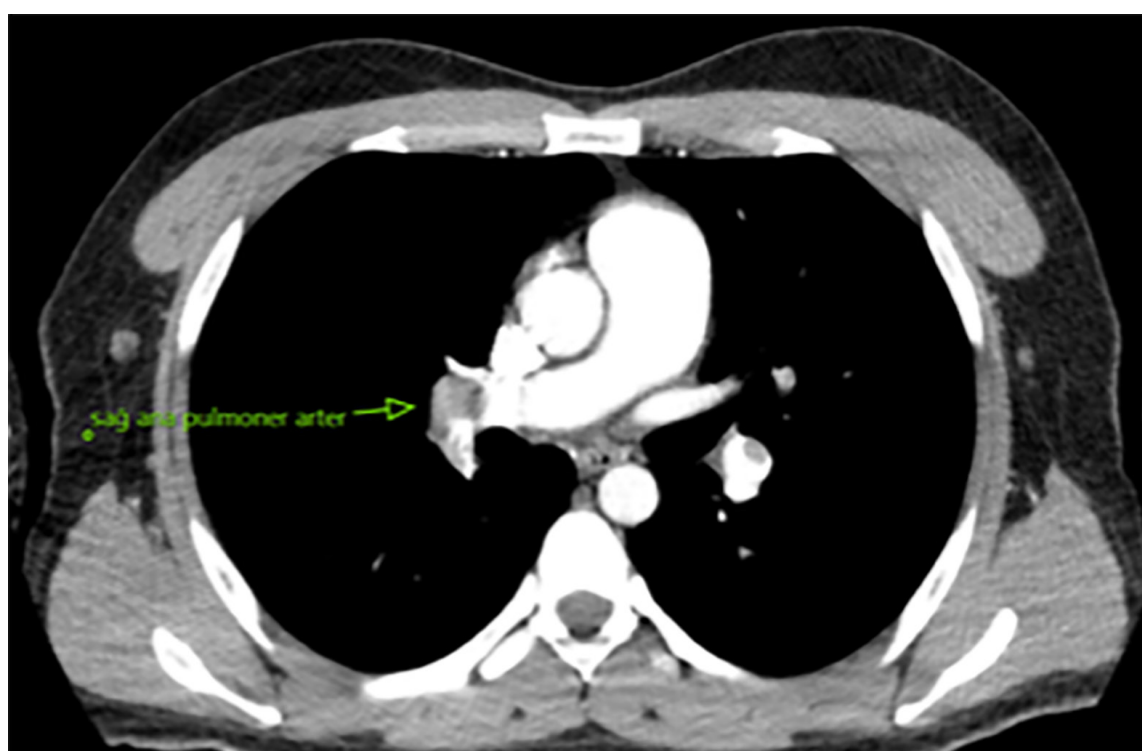
any drugs or cigarettes. Hemodynamics of the patient was stable upon arrival in the emergency room. Ekg in normal sinus rhythm, venous blood gas taken; ph: 7.37, So2: 61%, pco2: 37 mmhg, glucose 142, lactate 4.5. Syncope, urinary incontinence and lactate height caused the patient to suspect central pathologies. In addition, because of the Covid-19 pandemic, patients were not masked in the emergency room, and the patient had a mask. The patient stated that he had difficulty in breathing during this period and wanted to remove the mask. Considering the complaint of dyspnea due to a pandemic, we also took Thorax CT next to Brain Computed Tomography (CT). In the emergency report by the Brain CT Radiology clinic; It was interpreted as a suspect in terms of 9 mm subacute epidural hematoma in the right frontal region in the basal ganglion plane. Thorax CT was reported as normal. The patient was then consulted to neurosurgery. As a result of the neurosurgical consultation, he stated that there was no neurological finding in the patient and suggested polyclinic control.

When the patient got up at the 4th hour of his follow-up, we looked again at the hemodynamic parameters after the patient developed syncope for the second time. Blood pressure was 100/60 mmhg, heart rate was 128, fingertip blood sugar: 140, so2: 96%, and the patient stated that shortness of breath increased. On this, we studied Brain CT, cardiac panel and D-dimer from the patient again. In the emergency

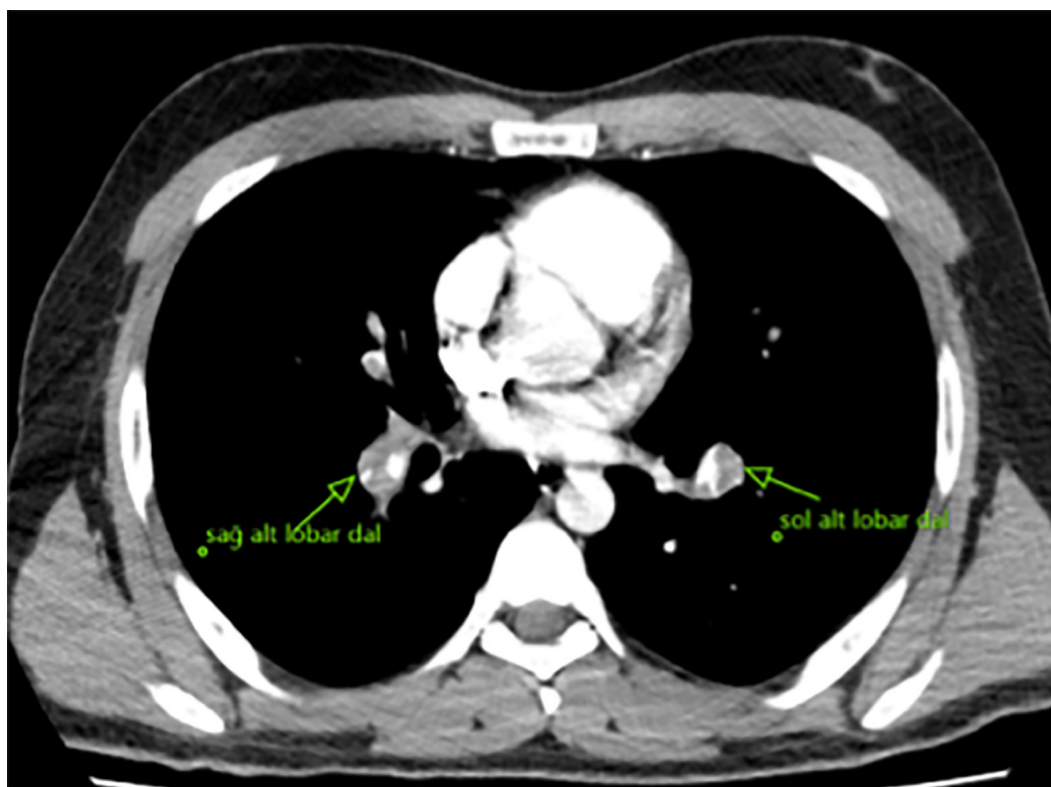
report of the radiology clinic; The last drawn Brain CT reported as normal and corrected the 9 mm subacute epidural hematoma interpretation as an artifact in the right frontal region in the basal ganglion plane indicated in the previous Brain CT. Diffusion MR was performed on the patient who was contacted with simultaneous neurology. Normal reporting of diffusion MR has taken us a little further from central pathologies. The patient's D-dimer result was 8.8  $\mu\text{g}$  / ml. On top of that, when the patient's anamnesis was taken again and in detail, he stated that he had a slight shortness of breath for 2 weeks. Upon this, we performed urgent pulmonary CT angiography. The pulmonary CT Angio report reported a compatible appearance with pulmonary thromboembolism starting from both main pulmonary arteries and

allowing partial flow in both main pulmonary arteries to fill the lumen in the middle and lower lobar branches on the right and almost in the lower lobar branch on the left (Figure 1,2,3). As a result, we diagnosed the patient with pulmonary embolism, immediately started DMAH treatment and hospitalized the patient in the chest diseases service.

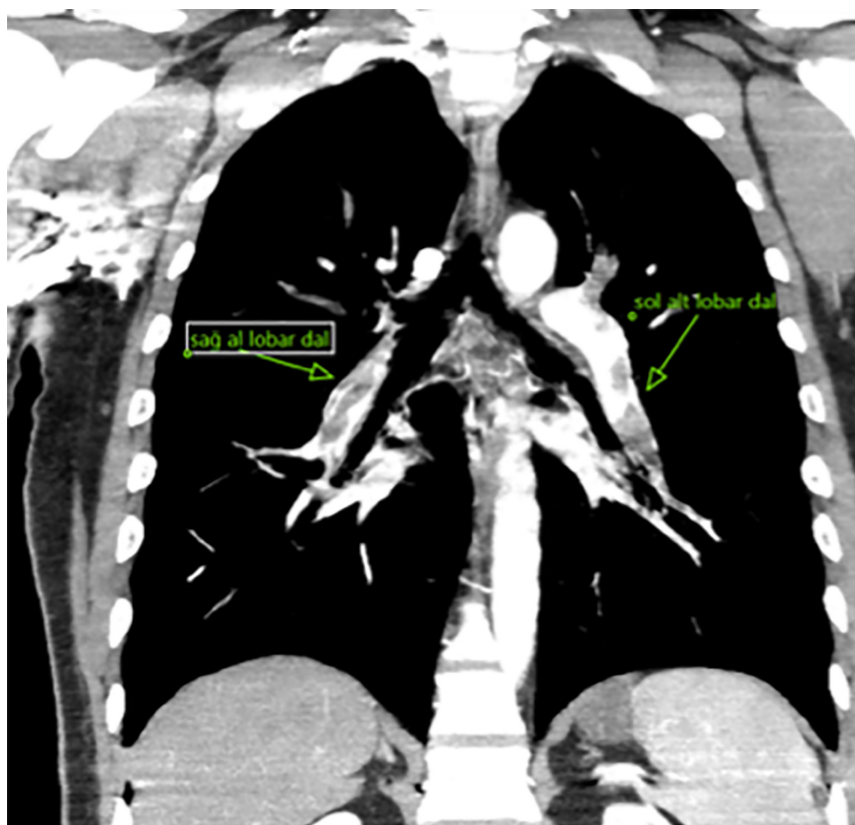
Then, in lower extremity doppler ultrasonography for etiology; Vena safena magna (VSM) was measured 11 mm proximally and 19 mm in the knee joint. In the proximal neighborhood of VSM, varicose venous structures up to the knee joint attracted attention. The appearance of slowed blood flow in VSM and varicose structures was observed. As a result, it was concluded that this is the source of pulmonary embolism.



**Figure -1.** Nearly complete thrombus and very low flow in the right main pulmonary artery, axial pulmonary CT angio view.



**Figure -2.** Nearly total thrombus in the right and left pulmonary al lobar arteries and very low flow, axial pulmonary CT angio view.



**Figure -2.** Nearly total thrombus in the right and left pulmonary al lobar arteries and very low flow, axial pulmonary CT angio view.

## Discussion

Most deaths due to pulmonary embolism occur approximately within the first few hours after application and if no diagnosis has been made. While the mortality of the hospital increases up to 30% due to undiagnosed Pulmonary Embolism, mortality decreases to around 8% in patients diagnosed early. For this reason, patients who come to the emergency department with the complaint of shortness of breath should be vigilant even if the body mass index is normal, even a young patient with no additional disease, and care should be taken to take detailed anamnesis.

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