

# A Submassive Pulmonary Embolism Case with Wide Spread Infarcts Throughout Lungs Presented Atypically

*Akciğerde Yaygın Enfarktla Seyreden Submasif Atipik Prezantasyonlu Pulmoner Emboli Vakası*

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Pulmonary thromboembolism (PTE) is a clinical disorder which can end up with mortality in the elderly. PTE usually presents with cardiopulmonary symptoms. Atypical presentations among elderly patients can delay PTE diagnosis causing serious complications. Here we present a 71 years old man who admitted with loss of appetite, weight loss and constipation and diagnosed with PTE without any pulmonary symptoms.

**Key Words:** *Atypical Presentation, Pulmonary Embolism, Elderly*

Pulmoner tromboemboli ileri yaşta mortal seyredebilen klinik bir durumdur. Sıklıkla kardiyopulmoner semptomlarla prezente olur. Yaşlı hastalarda atipik prezantasyonlar tanıda gecikmelere neden olabildikleri için ciddi komplikasyonlara neden olabilmektedir. Burada iştahsızlık, kilo kaybı ve kabızlık şikayeti ile başvurup hiç bir pulmoner semptom tariflemeyen ve pulmoner tromboemboli tanısı alan 71 yaşında bir erkek hastayı sunacağız.

**Anahtar Sözcükler:** *Atipik Prezantasyon, Pulmoner Emboli, Yaşlı*

Atypical presentation of cardiovascular and respiratory system disorders is common among elderly population. Atypical presentation tends to be more common among functionally limited elderly and among patients with diminished cognitive reserve. Atypical presentations can result in a delay in diagnosis causing an increase in morbidity and mortality (1).

Pulmonary embolism (PE), usually secondary to thrombosis of the deep veins of the legs, is a highly mortal and morbid disease with an increased incidence among elderly (2). Pulmonary Embolism usually presents with dyspnea, tachypnea, pleuritic chest pain and tachycardia. In elderly patients, the most common symptoms are tachypnea (respiratory rate > 16 breaths/minute), shortness of breath, chest pain that may be pleuritic, anxiety, leg pain or swelling, hemoptysis, and syncope. Patients who have small thromboemboli may be asymptomatic or have atypical symptoms. Nonspecific symptoms suggestive of pulmonary emboli in the elderly include persistent low-grade fever, change in

mental status, or a clinical picture that mimics airway infection. Also, confusion, unexplained fever, wheezing, resistant heart failure, unexplained arrhythmias may occur. Fewer than 20% of elderly patients have the classic triad of dyspnea, chest pain, and hemoptysis (1, 2). Severity of the clinical presentation depends on the size and number of embolisms and presence of infarcts. Also, pulmonary infarcts are rarely secondary to embolism of peripheral arteries (3). Here, we will present an elderly with diffuse embolism and infarcts whose only complaints were insufficient oral intake, loss of appetite and weight loss.

## Case Report

Seventyone year old male admitted with loss of appetite, diminished oral intake and six kilograms of weight loss in preceding three weeks. He was constipated, defecated once in two weeks, and had a sense of sticking when swallowing solid food. He denies nausea and vomiting. He was hypertensive for five years and was on valsartan + hydrochlorothiazide and amlol-

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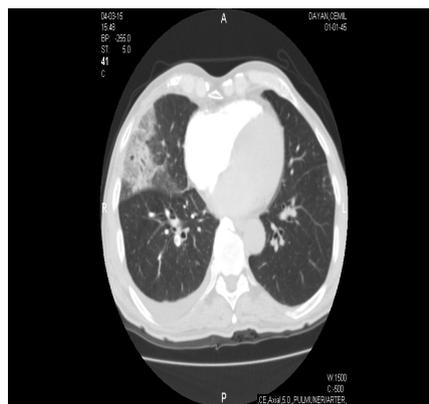
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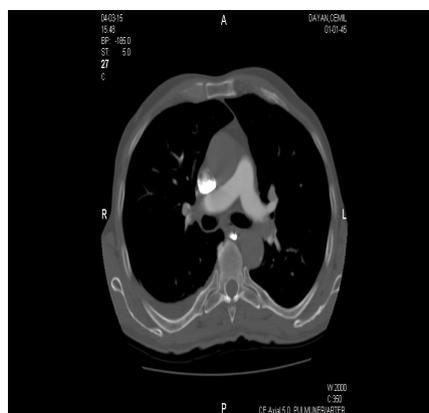
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dipine treatment, but he says his arterial blood pressure was in normal range for preceding three weeks despite ceasing his drugs. He had a history of 50 packs/year of cigarette smoking and had dyspnea with effort. He was deeply cachectic in his physical examination with a body mass index of 16.5/kg/m<sup>2</sup>. His handgrip strength was: 13.5 kg, mini nutritional screening score was:3, total:11, KATZ Daily living activities score: 5/6, Lawton-Brody instrumental Daily living activities score: 10/17, walking speed:1,2 m/sec in his comprehensive geriatric assessment. His peripheral arterial oxygen saturation was 92 % with pulse oximeter, heart rate 121/min, arterial pressure 124/75 mmHg. He had no wheezing, rales or rhonci, he was not tachypneic. In his cardiac examination he had no murmurs. There was not any obvious organomegaly in his abdominal examination but his bowel sounds were diminished. There was 3 cm difference between his calves diameter. His posteroanterior chest graphy revealed no obvious etiological cause. He was hospitalized with these findings for etiological evaluation, in his further assessment his C reactive protein level was: 149 mg/L (0,0 - 3,0),serum albumin level was:2,8 g/dL (3.5 - 5.2), serum leucocyte count was: 12300 x10<sup>9</sup>/L (4.5 - 11), D-dimer level was: 8125 ng/mL (0 - 243) and in his arterial blood gas analysis pH was:7.44 (7.35 - 7.45), pCO<sub>2</sub>:34 mmHg (35 - 45), pO<sub>2</sub>:70mmHg (80-100), SO<sub>2</sub>: %94.7 and HCO<sub>3</sub>:24 mmol/L (22-26). With these findings Pulmonary thrombo embolism (PTE) was suspected and he was examined with pulmonary angiography with computed tomography. He had filling defects in; right upper apical, apicoposterior, anterior lobe branches; lower superior, medial and posterior basal lobe branches; all middle lobe branches; left upper anterior, and all branches of pulmonary artery to left lobe compatible with thrombus. Pleural based consolidations with ground glass appearance compatible with infarctus was detected in right middle, right lower posterior, left lower lateral and posterior basal segments (fi-

gure 1 and 2). Lower extremity doppler ultrasonographic examination was performed for etiologic evaluation. Acute thrombosis of right popliteal vein extending to saphenofemoral junction was detected. His echocardiogram was performed and hypokinetic areas of anterior wall was detected and his pulmonary arterial systolic pressure was measured to be 45 mmHg. Further evaluation was performed to exclude an underlying malignancy since he had weight loss, swallowing difficulty, change in defecation habits and widespread pulmonary embolism. His abdominopelvic tomography was free of malignancy. His rheumatological markers were of no clinical significance. His upper and lower gastrointestinal system endoscopic evaluation revealed pangastri- tis and sigmoidal polyps of no clinical importance. He was started anticoagulation therapy and discharged.



**Figure 1:** Widespread infarcts spread all over right lung



**Figure 2:** Thrombi in right and left pulmonary artery branches

## Discussion

When an elderly with weight loss, loss of appetite and constipation admits gastrointestinal malignancies should be excluded initially. But even constipation alone can cause all of these symptoms so while excluding malignancies clinical suspicion should be high not to miss other underlying disorders. It is well known that PTE secondary to deep vein thrombosis can be a presenting sign of a malignancy or can be complication of malignancy (4).

Pulmonary symptoms are commonly the presenting sign of PTE, dyspnea being the most common symptom also in the elderly, but an important percentage of patients suffer from nonspecific symptoms or even asymptomatic (5). Furthermore elderly patients are more likely to present with atypical symptoms such as fatigue, dizziness, and syncope. Since most of the hyperdynamic responses are blunted in elderly first signs of many disease can be fatigue and dizziness, and these two symptoms also account an important percentage of elderly admission to hospitals. These all make diagnosis of PTE in the elderly difficult and necessitates the clinicians to be always alert (6).

In this case contrary to common symptoms of PTE there were nonspecific constitutional symptoms. The presenting symptoms' being loss of appetite, weight loss and change in defecation habits which are usually presenting signs of underlying malignancies and absence of hypoxia in blood gas analysis made PTE diagnosis less likely. His laboratory evaluation was completely normal besides low albumin level which is a common finding in weight loss and constipation. Immobilization, calcium channel blockers (patient was using), insufficient food intake, depression, diminished daily living exercise can all cause constipation and vice versa (7). So clinical suspicion should be always high in the elderly. Only clues in his physical examination were calf circumference difference between legs which can be secondary to hypoal-

buminemia and calcium channel blocker use and tachycardia which usually is a blunted response rising PTE suspicion and an indication for further evaluation. Tachycardia, normotension despite quitting three antihypertensive medications, and 45 mm Hg systolic pressure of pulmo-

nary artery made urgent further evaluation necessary and he was diagnosed having submassive PTE after imaging widespread embolies and infarcts. Proper treatment was started in the first day of hospitalization.

As a result, although diagnosis other than PTE are suspected in elderly patients

admitting with atypical symptoms and without hypoxia, PTE should always be kept in mind for differential diagnosis and a lower threshold of clinical suspicion compared to younger patients should be held for imaging and therapy should start as soon as possible.

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