ARCHIVES OF HELLENIC MEDICINE: ISSN 11-05-3992

CONTINUING MEDICAL EDUCATION
ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Pneumonology Quiz – Case 4

ARCHIVES OF HELLENIC MEDICINE 2016, 33(6):851–852
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2016, 33(6):851–852

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A 34-year-old female patient presented to the emergency department with 6 hours' history of sudden onset of breathlessness associated with severe pleuritic chest pain, minimal hemoptysis and pyrexia. She denied any other symptoms. She had only returned from a business meeting in South Africa a week ago and she was quite concerned of the possibility of having contracted a tropical infection, although she had followed vaccination and hygiene advice given by an infectious disease specialist before her departure, four weeks ago. Her past medical history included two episodes of miscarriage.

On examination, she was tachycardic (95 bpm) with normal blood pressure (140/75 mmHg), tachypneic (22 bpm) with normal oxygen saturation (95% on room air) and pyrexial (37.4 ^{o}C). A detailed clinical examination did not yield positive clinical findings. Full blood count, urea and electrolytes, as well as c-reactive protein (CRP) were all within normal range. Chest X-ray was insignificant.

Questions

1. What is the most likely diagnosis? How would you further investigate?
   Given her presenting complaint, normal inflammatory markers and recent history of a long haul flight, pulmonary embolism is the most likely diagnosis. She scored 4 in Wells score (moderate risk group). Her d-dimer was significantly elevated (four times the upper normal value). As a result, treatment dose of low molecular weight heparin was introduced and a computed tomography pulmonary angiography (CTPA) was requested.
2. Did the CTPA (figures 1a and 1b) reveal an embolus?
   CTPA demonstrated a large central, saddle pulmonary embolus, extending to left and right pulmonary arteries (figures 1a and 1b). Patient received low molecular weight heparin for three days and then was switched to dabigatran, a novel oral anticoagulant (NOAC).
3. Would you consider any further investigations? How long would you suggest this patient to receive anticoagulants for?
   Two miscarriages and a saddle pulmonary embolism (even if it was provoked by a long haul flight) should trigger further

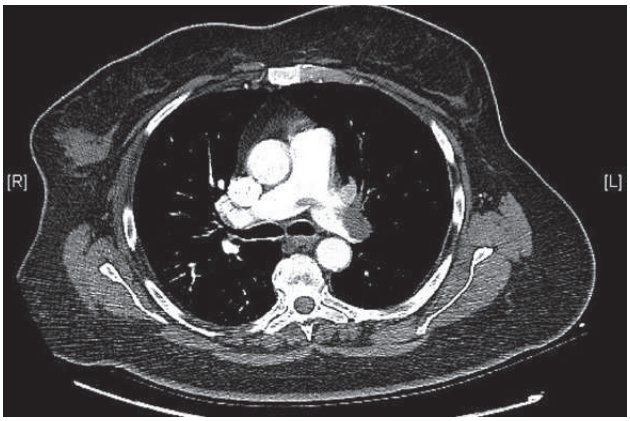

Figure 1a

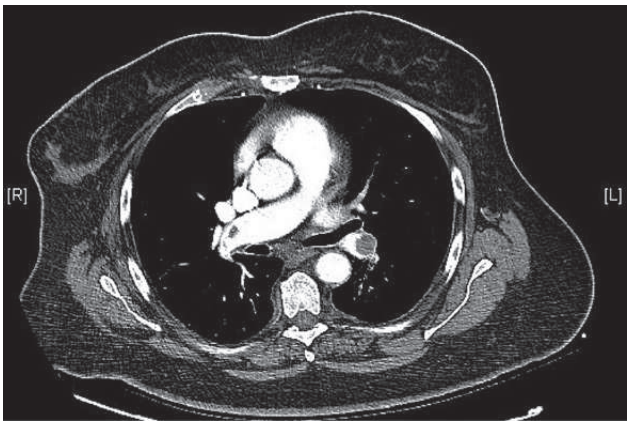

Figure 1b

investigations for thrombophilia. Screening of this patient included antithrombin, proteins C and S, APC resistance assay, antiphospholipid antibodies and genetic screening for factor V Leiden or prothrombin gene mutations. Lupus anticoagulant was present, suggesting the diagnosis of antiphospholipid syndrome; thus patient was referred for hematology opinion. Lifelong anticoagulation would be advisable.

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Answers:

Question 1: Pulmonary embolism

Question 2: Saddle embolus

Question 3: Thrombophilia screen