

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Pneumonology Quiz – Case 1

A 60-year-old female patient with a background of frequent lower respiratory tract infections and no smoking history was admitted with three days history of central chest pain, pleuritic in nature, associated with shortness of breath and cough productive of yellow phlegm. The symptoms were progressive and the patient was quite unwell on examination, tachycardic, tachypnoeic, with an oxygen saturation fluctuating between 85 and 90% on room air. On examination, the trachea was central and the chest expansion symmetrical. There was hyperresonance in her left hemithorax, without decreased respiratory sounds. Bronchial breathing was also noted in the left lower respiratory field. Her admission blood tests showed a mild increase in the inflammatory markers and her chest X-ray is attached (fig. 1).

Could you describe the significant findings of this X-ray?

What will your next step of action be and why?

- Request previous X-rays for comparison
- Insertion of a large bore needle in the left second intercostal space
- Monitor the patient
- Chest aspiration
- Chest drain.

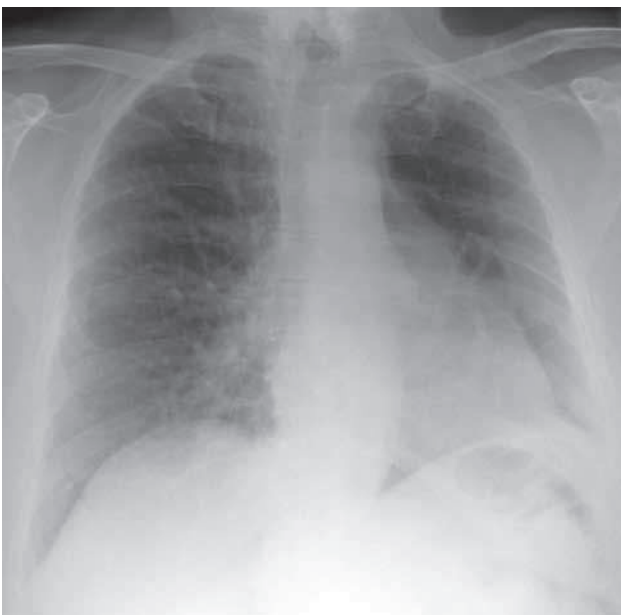


Figure 1

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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2015, 32(5):663–664

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Comment

This is a plain posterior-anterior chest X-ray. The left hemithorax is hypertranslucent without any lung markings. There is no visible visceral pleural edge. The trachea and mediastinum are not deviated. The left hilum appears hypoplastic.

The differential diagnosis of a hypertranslucent hemithorax is presented in table 1. Tension pneumothorax is a life-threatening emergency which should be considered. However, in this case there are plenty of findings that do not support this diagnosis (symmetrical chest expansion and breathing sounds, absence of tracheal and mediastinal deviation and absence of the visceral pleural edge in the chest X-ray). Previous X-rays of the patient were similar and further investigations revealed a hypoplastic left pulmonary artery and hypovascularity of the left lung, compatible with Swyer-James syndrome. The patient was diagnosed with a lower respiratory tract infection and she was treated with IV antibiotics, controlled oxygen

Table 1. Differential diagnosis of hypertranslucent hemithorax.

<i>Chest wall defect</i>	<i>Pleural disease</i>
Mastectomy	Pneumothorax
Scoliosis	Contralateral pleural effusion
<i>Lung defect</i>	<i>Vascular defect</i>
Air trapping	Pulmonary embolism
Congenital lobar hyperinflation	Congenital heart disease
Bullous disease	Shunt (e.g. Blalock Taussig)
Unilateral lung transplantation	Swyer-James syndrome
<i>Increased density of the contralateral lung</i>	<i>Rotated film</i>

therapy and rehydration. She improved within 1–2 days and she was discharged on a course of oral antibiotics.

Swyer-James syndrome is a rare obliterative lung disease, which represents an uncommon complication of a lower respiratory tract infection during childhood. The affected lung is characterized by an inability to grow, hyperexpansion, hypovascularity and a hypoplastic pulmonary artery. It may be associated with frequent infections and bronchiectasis.

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