Journal of Microbiology, Immunology and Infection (2013) 46, 139—142

Available online at www.sciencedirect.com

SciVerse ScienceDirect

journal homepage: www.e-jmii.com

CASE REPORT

Systemic lupus erythematosus with initial presentation of empyematous pleural effusion in an elderly male patient: A diagnostic challenge

Wei-Ting Chang [a], Tung-Han Hsieh [a,b,*], Ming-Fei Liu [a,c]

[a] *Department of Internal Medicine, National Cheng Kung University College of Medicine and Hospital, Tainan City, Taiwan, ROC*
[b] *Division of General Medicine and Cardiology, National Cheng Kung University College of Medicine and Hospital, Tainan City, Taiwan, ROC*
[c] *Division of Rheumatology, National Cheng Kung University College of Medicine and Hospital, Tainan City, Taiwan, ROC*

Received 6 September 2011; received in revised form 13 October 2011; accepted 17 November 2011

KEYWORDS
Elderly male;
LE cell;
Pleural effusion;
Systemic lupus erythematous

Systemic lupus erythematosus (SLE) poses great difficulty in making an early diagnosis in elderly males, often presenting with atypical manifestations. Acute onset of empyematous pleural effusion has rarely been seen. Herein, we report a 66-year-old man with SLE presenting with rapid progression of bilateral pleural effusion. Diagnostic thoracocentesis disclosed neutrophil-predominant exudates and chest computed tomography revealed multiple loculated pleural effusions. Nevertheless, optimal antibiotic therapy plus surgical decortication of the pleura did not improve his condition. The diagnosis of SLE was readily established after LE cells were accidentally found in the pleural effusion. Large amounts of pleural effusion subsided soon after high dose corticosteroid therapy.

Introduction

Systemic lupus erythematosus (SLE) is an autoimmune inflammatory disease involving multiple organs. It mostly affects young and middle-aged females and is diagnosed by American College of Rheumatology (ACR) criteria. However, a wide spectrum of clinical manifestations is common and early diagnosis is crucial to potentially fatal complications. Male geriatric patients with SLE are easily missed or

* Corresponding author. Department of Internal Medicine, National Cheng Kung University College of Medicine and Hospital, Number 138, Sheng Li Road, East District, Tainan City, Taiwan 704, ROC.
E-mail address: mevalotin2000@yahoo.com.tw (T.-H. Hsieh).

1684-1182/$36
doi:10.1016/j.jmii.2011.12.032

delayed in diagnosis because of the lower incidence in these groups and atypical clinical presentations. We report an elderly male SLE patient who initially presented with empyematous pleural effusion. Interestingly, the rapid diagnosis of SLE was due to the accidental observation of LE cells in the pleural effusion.

Case report

A 66-year-old male with hypertension who previously had medical therapy, was admitted for fever and dyspnea lasting several days. One week previously, he had been hospitalized for left pneumonia with parapeumonic effusion. After treatment with empirical antibiotics for 3 days, even though no specific pathogen was isolated, he felt better and was discharged, against advice, with an oral form of levofloxacin. Physical examination revealed his blood pressure was 140/82 mmHg, blood temperature 37.8°C, pulse rate was 110 beats/minute, and respiratory rate was 24 breaths/minute. Decreased breathing sounds over the bilateral lower lung fields and bilateral pedal edema were recorded, but lymphadenopathy and skin lesions were not noted. The chest film revealed cardiomegaly, a new right massive pleural effusion and worsening of the previously existing left pleural effusion (Fig. 1A).

Laboratory analysis showed the white blood cell count as 15.5 k/cm^3 (normal range = 3.4k–9.1 k/cm^3), hemoglobin concentration as 8.8 g/dL (normal range = 13.5–17 g/dL), serum albumin level as 2.5 g/dL (normal range = 3.5–5 g/dL), glucose as 280 mg/dL (normal range = 75–105 mg/dL) and C-reactive protein as 163.9 mg/L (normal <5 mg/L). A positive direct Coombs' test was incidentally noticed while preparing for blood transfusion. Urine analysis showed proteinuria (>300 mg/dL). Diagnostic thoracocentesis resulted in an exudate with predominant neutrophils. He was then treated for pneumonia, complicated by parapneumonic pleural effusion after above evaluation.

There was no improvement under the treatment of 3rd generation cephalosporins and doxycycline, and a chest tube was placed, but in vain. Chest computed tomography (Figs. 1C and 1D) which showed bilateral loculated pleural effusion, consolidations and ground glass opacities at the bilateral lower lobes, cardiomegaly and trivial pericardial effusion. Serial analysis of pleural fluids (Table 1) revealed them to be consistently exudative in nature, and there was an incidental finding of LE cells.

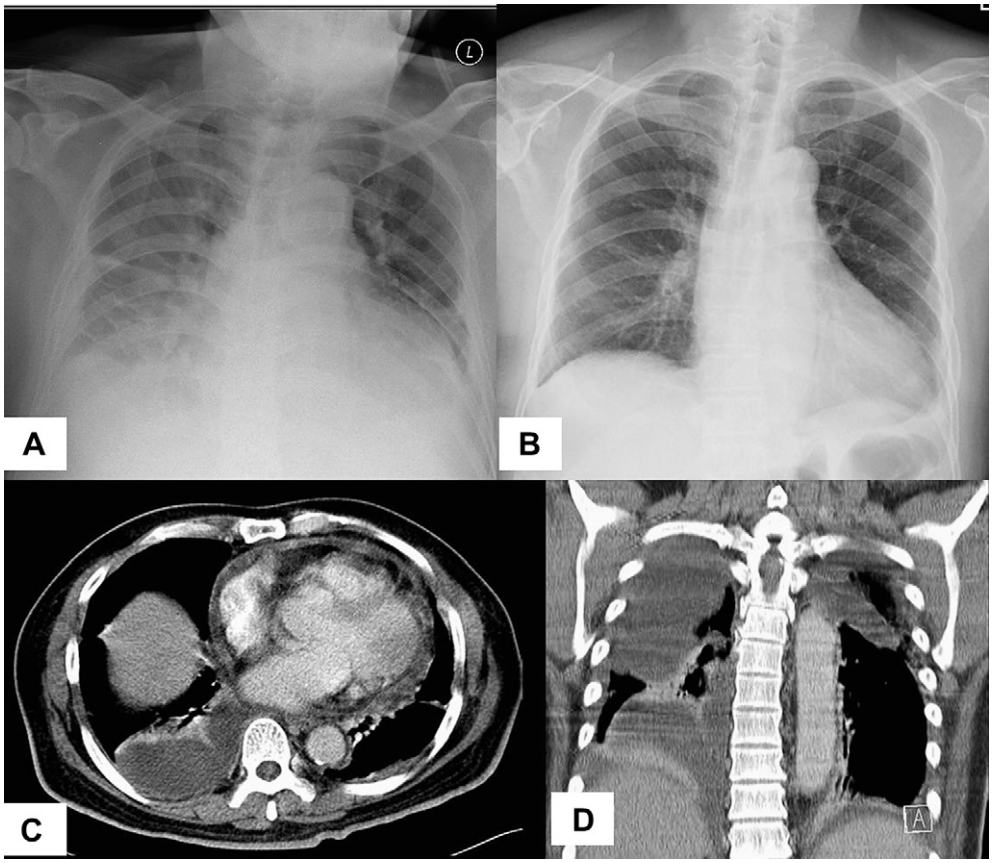

Figure 1. Chest X-ray and chest computed tomography before and after systemic steroid therapy. (A) Chest X-ray on this admission showing cardiomegaly and bilateral exacerbated pleural effusion; (B) chest X-ray after right side decortication and systemic steroid therapy showing obvious improvement; (C, D) chest computed tomography showing lobulated pleural effusions over both lungs, more on the right side with consolidations and with ground glass opacities at bilateral lower lobes as well as cardiomegaly and some pericardial effusion.