

PULMONARY MANIFESTATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Abstract

Introduction: Systemic lupus erythematosus (SLE) is a complex systemic autoimmune disease, with numerous immunologic and clinical manifestations. More than half of all patients with SLE will experience involvement of the lung parenchyma, pulmonary vasculature, pleura, or chest wall, which are collectively considered pulmonary manifestations of lupus.

Objectives: Purpose of our study was the identification of pulmonary manifestations in patients with systemic lupus erythematosus, their assessment in relation to immunological alterations, their relation to gender and assessing the sensitivity of the examinations that are used to detect lung injury.

Patients and Methods: This is a cohort prospective study that analyzed 60 patients with systemic lupus erythematosus. Patients were examined by laboratory tests such as: anti-nuclear antibody, anti double stranded DNA antibody, anticardiolipin antibodies and D dimer. Chest x-ray, pulmonary high-resolution computed tomography, computerized tomographic pulmonary angiography, pulmonary function tests and echocardiography doppler were performed for the patients.

Results: Pleural effusion was 17 patients (28%). Interstitial lung disease was 7 patients (12%), acute lupus pneumonitis 2 patients (3%), pulmonary thromboemboli 7 patients (12%) and pulmonary arterial hypertension were 3 patients (5%). Restrictive ventilator insufficiency is 19 patients (32%).

Conclusions: Pulmonary manifestations are common in SLE and have a wide spectrum. These injuries are anatomical and functional. Immunological alterations are important factor in pulmonary injuries. Gender is a factor that influences the pulmonary injuries. High-resolution computed

tomography is the most sensitive examination for the detection of pulmonary manifestations in systemic lupus erythematosus.

Key words: lupus, pulmonary, pleural effusion.

Introduction

Systemic lupus erythematosus (SLE) is a complex systemic autoimmune disease, with numerous immunologic and clinical manifestations (1). It is considered as the prototype of autoimmune disease and it is characterized by the production of a wide series of autoantibodies as well as by a variable clinical presentation (2). Clinically characterized by multisystem involvement and varied serologic abnormalities, no two patients present or have disease that evolves in exactly the same way (3). More than half of all patients with SLE will experience involvement of the lung parenchyma, pulmonary vasculature, pleura, or chest wall, which are collectively considered pulmonary manifestations of lupus (4, 5, 6). A recent autopsy study of 90 patients diagnosed with SLE, according to the American College of Rheumatology, pleuropulmonary involvement occurred in 98% of the autopsies (7). The prevalence of respiratory manifestations in patients with systemic lupus erythematosus varies depending on several factors, including methods of diagnosis, time of follow-up, etc (8). Purpose of our study was the identification of pulmonary involvement in patients with SLE, their assessment in relation to immunological alterations, gender and evaluation of the sensitivity of the technique for the detection of lupus lung disease.

Patients and Methods

This is a prospective cohort study that analyzed 60 patients with systemic lupus erythematosus (SLE). These patients were hospitalized in the clinic of Rheumatology, Lung diseases or followed as