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Clinical rheumatology in images

A woman with rheumatoidarthritis and a pleural effusion

Mujer con artritis reumatoide y derrame pleural

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Case report

The patient, a 64 year old woman, had a history of Rheumatoid Arthritis (RA) with an onset 3 years prior, diagnosed and followed at another communities' rheumatology department, and had been treated with adalimumab and leflunomide since approximately 3 months prior, without a clinical report from her referral center. She had no prior history of cardio-respiratory disease. She came to the emergency department complaining of progressive dyspnea that had lasted for 3 days, progressing to breathlessness induced by minimal effort. The physical examination revealed the presence of bilateral basal crepitant rales, as well as diffuse roncus and tachyarrythmia The electrocardiogram confirmed the presence of atrial fibrillation (AF). Blood analysis showed leucocytosis and an elevated alanine aminotransferase (ALT) 702 UI/l , aspartate aminotransferase (AST) 278 UI/l, C reactive protein (CRP) 42 mg/l, lactate dehydrogenase (LDH) 485 UI/l, blood gas presented respiratory acidosis and D dimer (DD) was 0,35 µg/ml (reference value < 0,16). The chest x-ray showed an increase in the radio-opacity of alveolar and interstitial tissue and, due to the possibility of a pulmonary thromboembolism, an angio-CAT scan was requested, showing a bilateral pleural effusion with bilateral laminar atelectasia (Figures 1-3).

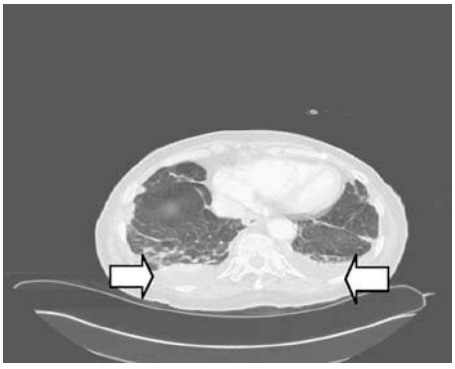

Figure 1. CAT scan at hospitalization.

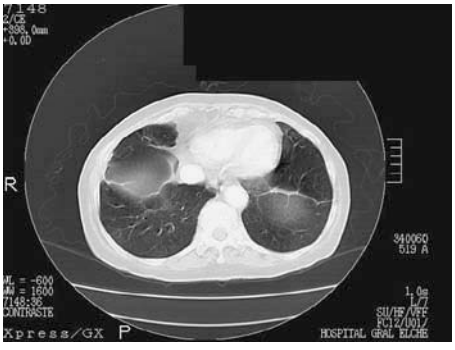

Figure 2. CAT scan at discharge.

Diagnosis and progression

After ruling out thromboembolism and interstitial lung disease, rheumatoid pleural affection was suspected vs heart failure and/or toxic hepatitis due to drugs, suspending adalimumab and leflunomide as a preventive measure, as well as due to the fact that the patient had no synovitis. She was additionally treated with levofloxacyn empirically because of the suspicion of a concomitant upper respiratory tract infection and because of the poor initial condition of the patient. An echocardiogram was performed, showing a moderate aortic insufficiency. After suspending both drugs, treatment with diuretics was begun and the patient progressed satisfactorily, with a reduction in dyspnea and normal breath sounds. Upon discharge, transaminases, CRP and the chest CAT scan were all normal. AF persisted and underwent treatment with digoxin, while

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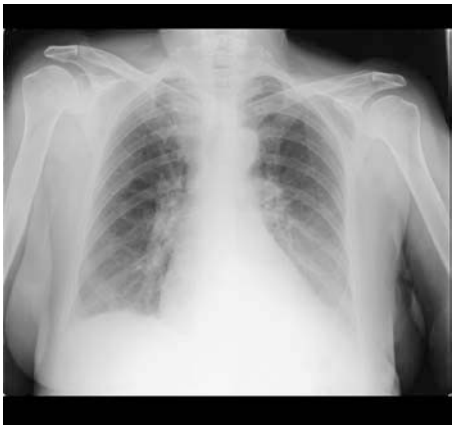

Figure 3. Chest x-ray at hospitalization.

malleolar edema was managed with low dose diuretics. During the following controls the patient had no dyspnea, no edema and treatment with leflunomide had been started once again with no liver changes or other adverse events.

Discussion

The patient, with an apparent case of controlled RA, came to our department with cardiorespiratory and liver disease, with a multifactorial origin for her problemsrespiratory infection with secondary heart failure, mild baseline heart failure which was aggravated by the respiratory process and anti-TNF drugs, liver damage secondary to the use of drugs (adalimumab, leflunomida or both) and/or heart failure that had not been previously documented.

Pleuropulmonary[1] and liver[2] disease can occur in patients with RA[1] as an adverse drug effect or a complication of the disease. The temporal sequence of clinical manifestations and drug use may help to identify the origin of the events. In this case, patient improved upon the suspension of leflunomide and adalimumab. Both have been linked to toxic hepatitis,[3,4] especially when combined. In addition, the risk of older patients with underlying heart failure suffering aggravation of the cardiac disease while under anti-TNF treatment is well established,[3,4] as well as the greater risk for infection that this treatment entails. Respiratory infections may contribute to the exacerbation of a previously unknown baseline cardiac disease. In our patient, it may have been that adalimumab was the main cause of cardiac and liver decompensation because after its suspension, the problems remitted; and leflunomide was reintroduced with no problem. It is important to take the adverse events of the drugs used for treatment and control of patients with RA into account, in order to avoid cardiovascular and respiratory complications.

Disclosures

The authors state no disclosures.

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