



## **OVERLAP SYNDROME OF DERMATOMYOSITIS, SYSTEMIC LUPUS ERYTHEMATOSUS AND RHEUMATOID ARTHRITIS: A CASE REPORT**

Valdirene Silva Siqueira (Hospital das Clinicas da Faculdade de Medicina da Universidade de São Paulo, Sao Paulo, SP, Brasil), Lorena Elizabeth Betancourt (Hospital das Clinicas da Faculdade de Medicina da Universidade de São Paulo, Sao Paulo, SP, Brasil), Erivelton Azevedo Lopes (Hospital das Clinicas da Faculdade de Medicina da Universidade de São Paulo, Sao Paulo, SP, Brasil), Fernando Henrique Carlos Souza (Hospital das Clinicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brasil), Samuel Katsuyuki Shinjo (Hospital das Clinicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brasil)

### **BACKGROUND**

Overlap syndromes are rarely described in literature. Moreover, to the best of our knowledge, patients with dermatomyositis (DM), systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA) have not been described before.

### **CASE REPORT**

A Caucasian 45-year-old male presented malar rash, photosensitivity and arthritis (non-erosive and non-deforming). In addition, he had positivity to serum antinuclear factor, anti-dsDNA, anti-Ro and anti-La autoantibodies, hypocomplementemia and non-nephrotic proteinuria. The diagnosis of SLE was established (SLICC, 2012) and he received prednisone, hydroxychloroquine and methotrexate with good outcome. However, after nine months, he developed persistent polyarthritis and tenosynovitis. On the basis of a hand X-ray with erosive lesions and positive anti-cyclic citrullinated peptide, the diagnosis of RA (ACR/EULAR, 2010) was defined. The treatment was switched from methotrexate to leflunomide. At the same time, the patient showed new skin lesions compatible with Gottron's papules/sign, weakness affecting predominantly the proximal muscles of the legs and arms and creatine phosphokinase (CPK) levels have been found at 1600 U/L. A muscle biopsy revealed perivascular lymphomononuclear cell infiltration. The diagnosis of DM was validated (EULAR/ACR, 2017). The patient received methylprednisolone pulse therapy (3 g) and azathioprine 200 mg daily. At this time, his disease activity score-28 (DAS28) for RA was moderate, the CPK level was persistently increased and he had active skin disease. The clinical and laboratory features attributable to SLE disease activity were absent. Because of refractory disease, rituximab therapy was established and the patient achieved remission.

### **CONCLUSION**

This is the first case report that described a patient with well-defined classification criteria for DM, SLE and RA. Overlap syndromes present a challenging problem, because the clinical and immunogenetic heterogeneity of rheumatic disorders. In addition, the prognosis of these patients is unpredictable and the therapeutic approach difficult to handle.