Pseudoclubbing – a rare manifestation of an uncommon association of rheumatic diseases

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Pseudoclubbing has been described as a rare clinical manifestation that resembles clubbing but is characterized by an asymmetrical clubbing distribution of the fingers and radiographic acro-osteolysis, although this definition remains a matter of debate[1].

Few cases of *pseudoclubbing* are described in the literature and, as with clubbing, this manifestation may be associated with several conditions, some of them rheumatic diseases, like sarcoidosis[2] or systemic sclerosis[3].

A 36-year-old non-smoker female, with a previous diagnosis of sarcoidosis with stage 2 pulmonary involvement (diagnosis one year earlier, based on: increased serum angiotensin-converting enzyme; high-resolution chest computed tomography showing hilar/mediastinal lymphadenopathies and peripheral nodules; bronchoalveolar lavage demonstrating an increased number of lymphocytes with a high CD4+/CD8+ ratio (5.24) and negative microbiologic cultures (including mycobacterial); endobronchial ultrasound-guided fine-needle aspiration of mediastinal lymph nodes showing a non-necrotizing granulomatous inflammation; neck/chest/abdomen/pelvis computed tomography excluding the presence of tumoral masses, an endocrine disorder was also excluded), without known medication, was referred to the Rheumatology outpatient clinic with complaints of arthralgias in the metacarpophalangeal joints of both hands with episodes of joint swelling.

She had no other complaints (namely, Raynaud phenomenon), besides occasional dysphagia and xerophthalmia.

The physical exam demonstrated *pseudoclubbing* of the third and fourth fingers of the right hand and, in an initial phase, of the first and second fingers of the left hand, as well as a "*puffy finger*" appearance of the fifth finger of the right hand and sclerodactyly of the proximal phalanges (Figure 1).

The complementary study revealed positivity for

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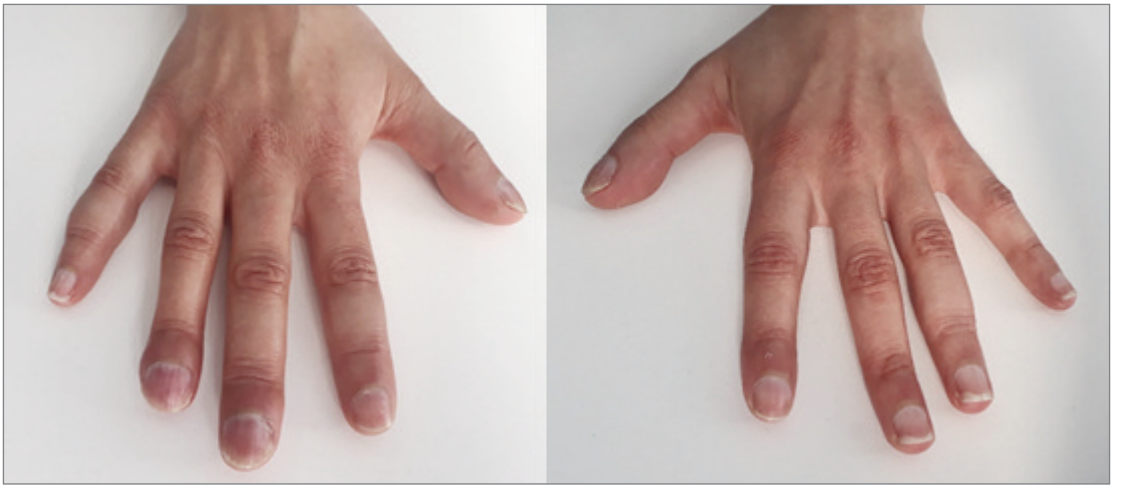

FIGURE 1. Pseudoclubbing of the third and fourth fingers of the right hand and, in an early phase, of the first and second fingers of the left hand.

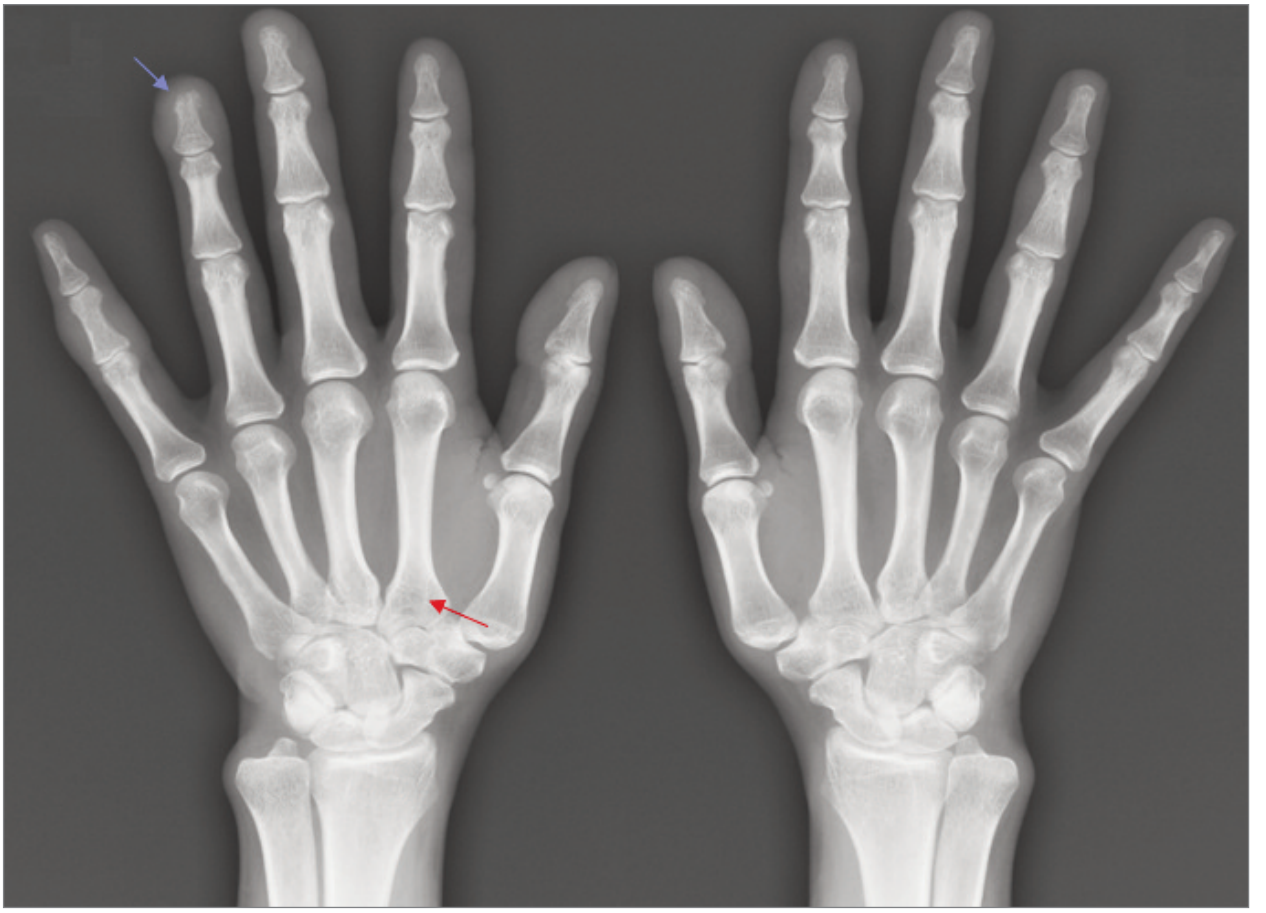

FIGURE 2. Acro-osteolysis of the distal phalange of the fourth finger (blue arrow) and bone cysts in the base of the second metacarpal bone of the right hand (red arrow).

antinuclear antibodies (>1/1000, centromere pattern) and for anticentromere antibodies. The remaining laboratory profile was unremarkable, including normal inflammatory markers.

Nailfold capillaroscopy revealed hemorrhages in the third and fourth fingers of the left hand and in the second, third and fifth fingers of the right hand. Hands X-ray showed acro-osteolysis of the distal phalange of the fourth finger and bone cysts in the base of the second metacarpal bone of the right hand (Figure 2). The magnetic resonance of the hands revealed diffuse bone marrow edema and synovitis in some metacarpophalangeal and interphalangeal joints, more pronounced in the fifth finger of the right hand. Esophageal manometry and transthoracic echocardiogram were normal and the evaluation by Pneumology excluded the progression of the respiratory involvement of sarcoidosis.

It was decided to initiate treatment with subcutaneous methotrexate (10mg/week) and, twelve months later, she had no joint complaints. Sclerodactyly and the degree of pulmonary involvement remained stable.

Pseudoclubbing is a rare clinical presentation that may underline a rheumatic disease. This patient had a previous diagnosis of sarcoidosis and presented with clinical and laboratory features of systemic sclerosis. A good response to methotrexate was observed. Coexistence of systemic sclerosis and sarcoidosis, conditions that share the possibility of a multiorgan involvement, is uncommonly described[4,5].

To our knowledge, this is the first case in the literature to describe *pseudoclubbing* in a patient with features of sarcoidosis and systemic sclerosis. The authors underline the importance of recognizing this rare entity and the possibility that it may be the first sign of a rheumatic disease.

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