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Bilateral hand edema: simply nothing or nothing simple?

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An 83-year-old Caucasian man presented to the author's hospital for study of hand swelling. The patient presented a bilateral hand dorsal pitting edema (Fig. 1) of one month of evolution with mild inflammatory pain on both metacarpophalangeal (MCP) and interphalangeal (IP) joints, 15 min of morning stiffness and limited movements of both wrists. There were no other joint complaints (such as shoulder or pelvic involvement), no jaw claudication nor headache and no constitutional or other systemic symptoms were present. Serum examination of the patient found a mild normocytic normochromic anemia (hemoglobin 13.1 g/dL), elevated inflammatory markers (erythrocyte sedimentation rate - ESR 53 mm/h, fibrinogen 580 mg/dL, elevated C-reactive protein – CPR of 20.6 mg/L) and negative autoimmunity biomarkers (including rheumatoid factor, complement and antinuclear autoantibodies). Radiography of both wrists demonstrated no joint erosion. Tumoral markers and CT body scan were normal. Treatment with low doses of prednisone (30 mg/day) was started presenting rapid remission of symptoms in less than 48 h, followed by maintenance of response stability after corticosteroids tapering.

What is the diagnosis?

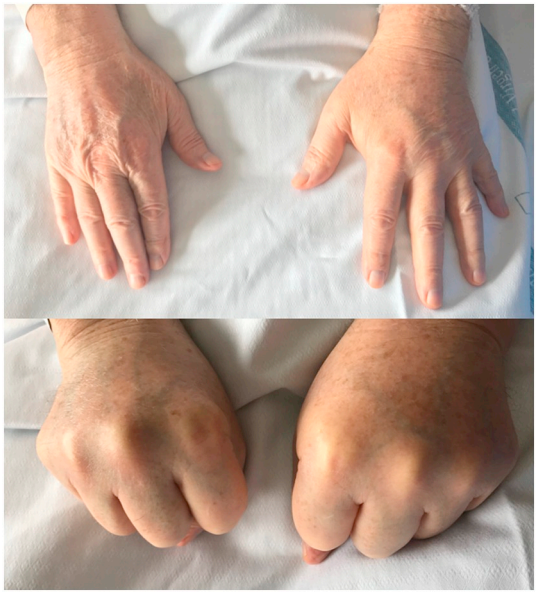

Fig. 1. Bilateral hand edema, predominantly on the left side.

1. Discussion section

The Remitting Seronegative Symmetrical Synovitis with Pitting Edema (RS3PE) is a rare rheumatological syndrome, first described by McCarty et al. in 1985 [1] from a cohort of patients initially diagnosed on advanced ages of seronegative rheumatoid arthritis. RS3PE affects predominantly white men older than 65 years-old, presenting with acute onset of symmetrical pitting edema of dorsum of both hands. Pain and movement limitation of the upper extremities joints such as wrists, metacarpophalangeal (MCP), interphalangeal (IP) and shoulder, accompanied by tenosynovitis of hand tendons are typically found [2].

Etiology of RS3PE is unknown and no pathognomonic features or serological parameters have been described. However, inflammatory response can be found in blood exams with elevated ESR, CPR and fibrinogen in the absence of autoimmune markers, mainly a negative rheumatoid factor. Other complementary examinations such as joint radiograph will demonstrate the absence of articulation erosion. When suspecting this entity differential diagnosis must be done mainly with chondrocalcinosis, rheumatoid arthritis and rheumatic polymyalgia, being considered an exclusion diagnosis. As well, association of RS3PE with malignancy has been described [3], which makes necessary further study particularly in patients presenting with constitutional symptoms. Treatment with low doses of corticosteroids induces a rapid response with symptoms remission, ensuring the diagnosis.

Conflict of interest statement

The authors declare no conflict of interest.

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