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Remitting Seronegative Symmetrical Synovitis with Pitting Edema: a case report

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Introduction

Remitting seronegative symmetrical synovitis with pitting edema (RS3PE) syndrome is a rare condition that occurs in elderly individuals. It is characterized by sudden onset of bilateral symmetrical distal tenosynovitis that accompanied by obvious swelling of the hand with pitting edema and absence of rheumatoid factor (RF). This disease entity sometimes are presented as overlap syndrome with other rheumatic diseases, and needed to be differentiated from that. However if the diagnosis is confirmed, the response to treatment is good. The purpose of this report is to describe the case of RS3PE syndrome presented with bilateral hand dorsum edema in middle-aged woman. .

Case Report

A 54-year-old woman visited the outpatient clinic with bilateral hand dorsum edema. She did not have a history of specific medical and family history, but problems began to occur from 6 weeks ago. At the time of outpatient visit, edema was observed in dorsal side of bilateral wrists and hands, and the degree of swelling was more severe on the left side. There was no pain and heating sense in the swollen hands. Physical examinations revealed normal motor and sensory functions in the upper and lower extremities, and range of motion of all wrist and finger joints were preserved. In the initial blood test, there was no abnormality other than mild elevation of C-reactive protein (CRP). Initially, NSAIDs were prescribed. However, after taking one week of medication, multiple arthralgia of both wrists, hands, hips, knees, and ankles were developed. At the same time, level of inflammatory marker was markedly increased (Erythrocyte sedimentation rate 21mm/h, CRP 7.12 mg/dl). However, RF and anti-cyclic citrullinated peptide antibody were normal. In the ultrasonographic examination, tenosynovitis of the extensor tendons of both wrists was observed. Additionally, diffuse subcutaneous layer and fascial edema of dorsal side of wrist was observed in outside magnetic resonance imaging. Based on clinical findings, she was diagnosed as RS3PE syndrome, and prescribed prednisolone 10mg daily. The edema and polyarthralgia were dramatically improved, and inflammatory marker was rapidly normalized within 2 weeks after taking prednisolone. Follow up ultrasonographic examination showed no tenosynovitis of extensor tendons of both wrists. The prednisolone was slowly tapered out during 4 months, and she is currently doing well without symptoms until 4 months after steroid off.

Conclusion

RS3PE syndrome is an uncommon disease and is still uncertain about the cause and diagnostic criteria. If both hands are suddenly swollen with findings of distal tenosynovitis

and negativity of RF, RS3PE syndrome should be considered after exclusion of other rheumatic disease. In addition, if RS3PE is suspected, a steroid can be used for both diagnostic confirmation and treatment.