

Unilateral RS3PE Syndrome

Tek Taraflı RS3PE Sendromu

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Remitting seronegative symmetrical synovitis with pitting edema (RS3PE) has been described as a limited syndrome of bilateral symmetrical synovitis that involves the wrists and hands that occurs mainly in elderly men.^[1] In this letter, we describe a case of unilateral RS3PE associated with prostatic adenocarcinoma that was diagnosed two years prior to his admission to our facility.

A 76-year-old man was admitted to our hospital with swelling and pain in the left hand and wrist. His complaints had started four weeks previously, and there was marked pitting edema of the dorsum of the left hand from the wrist to the metacarpophalangeal joints. In addition, the patient had a two year history of prostatic adenocarcinoma and had undergone a radical prostatectomy. Left wrist and metacarpophalangeal joint palpation was painful with slightly increased warmth, and the range of motion of the involved joints was diminished. On routine laboratory tests, the erythrocyte sedimentation rate was 32 mm/h (normal range 0-20 mm/h), C-reactive protein was 12 mg/dl (normal range 0-10 mg/dl), and the serum uric acid level was 6.8 mg/dl (normal range 3.5-7.2 mg/dl). Furthermore, the tests for serum rheumatoid factor (RF), antinuclear antibody (ANA), and anti-cyclic-citrullinated peptide (anti-CCP) were negative. A plain radiograph of the hand was normal except

for diffuse soft tissue swelling, and venous Doppler ultrasound (US) of the effected extremity was also normal. Additionally, a three-phase bone scintigraphy was performed which showed no pathological activity involvement, but there was activity increase connected with the inflammation in the left hand. We diagnosed the patient with RS3PE syndrome that was associated with his malignancy.

Methylprednisolone (16 mg daily) was started, and the edema and pain resolved over the course of two weeks. This rapid response to the corticosteroid therapy verified our RS3PE syndrome diagnosis. In the control examination after two months, the patient had no complaints of symptoms related to RS3PE syndrome, and a physical examination yielded normal results.

The differential diagnosis of RS3PE syndrome includes rheumatoid arthritis (RA), complex regional pain syndrome, gout arthritis, systemic lupus erythematosus (SLE), systemic sclerosis, overlap syndrome, mixed connective tissue disease, polyarteritis nodosa, amyloidosis, pseudogout disease, and carpal and tarsal tunnel syndromes.^[1,2] In addition, it may present as paraneoplastic syndrome, a musculoskeletal manifestation of malignancies. Patients with idiopathic RS3PE have responded

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well to low doses of corticosteroids, which is in contrast to the poor response of RS3PE associated with neoplasia.^[3] We diagnosed our patient with unilateral RS3PE syndrome related to prostatic adenocarcinoma, and his symptoms were quickly resolved with steroid treatment. In the literature, there is one case report that described RS3PE syndrome after prostatic adenocarcinoma surgery which was triggered by metastatic cells.^[2] We performed a whole body bone scintigraphy on our patient due to the suspicion of metastases associated with prostatic adenocarcinoma, but the result was unremarkable. Solid tumors as prostatic, colonic and gastric adenocarcinoma are frequently reported and these may either precede the diagnosis of RS3PE syndrome coexist with it, or be identified after the initial diagnosis. Moreover, some hematological malignancies may also be associated with this condition.^[3] To our knowledge, this is the first report of unilateral RS3PE syndrome associated with a previously diagnosed malignancy.

The literature only includes a few cases of unilateral RS3PE syndrome,^[4,5] but in our opinion, the unilateral involvement of this syndrome is not as rare as has been reported. Clinicians must recognize RS3PE syndrome when they come across it in connection with cases of asymmetric arthritis with pitting edema. However, we agree with other studies that have suggested that asymmetrical RS3PE may provide an additional challenge for

clinicians in these cases.^[1] We hope that our case will aid in the diagnosis of unilateral RS3PE in the future and lead to successful therapeutic intervention strategies.

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