

**Introduction:**

Remitting Seronegative Symmetrical Synovitis with Pitting Edema (RS3PE) is a rare inflammatory condition characterized by symmetrical polyarthritides, pitting edema in the extremities and the absence of typical serological markers found in rheumatoid arthritis (RA). It primarily affects individuals over 50 and presents challenges in diagnosis due to its clinical resemblance to other rheumatologic disorders.

**Case description:**

A 40-year-old male with a history of celiac disease presented with recurring episodes of abrupt hand swelling, pain and a burning sensation in both hands. These episodes occurred during sleep. There was no history of recent trauma, infections or fever. Vital signs were stable. On examination, there was pitting edema and erythema in both hands, limiting joint movement due to swelling and pain. Laboratory findings included a normal range of CBC, inflammatory markers and autoimmune serologies. X-rays and later an MRI showed evidence of extensor and flexor tenosynovitis.

The patient underwent tests ruling out various differential diagnosis including complex regional pain syndrome, seronegative RA and other inflammatory arthropathies along with cardiac, renal and hepatic etiologies of the edema. Based on the clinical presentation and exclusion of other causes, a diagnosis of RS3PE was suspected.

Treatment involved initiating prednisone at a dose of 0.5 mg/kg /day. Within 1 week, he reported significant improvement in swelling, pain and hand functionality. The prednisone dose was gradually tapered over 8 weeks resulting in complete resolution of symptoms.

**Discussion:**

First described by McCarty et al. in 1985, the precise pathological mechanism of RS3PE remains unclear. Pitting edema is a defining characteristic, commonly observed in both hands and feet. Imaging techniques such as USG/MRI have identified tenosynovitis as a primary contributor to the subcutaneous swelling.

RS3PE has been associated with various malignancies, suggesting that it could be a potential paraneoplastic syndrome. Hence, age-appropriate cancer screenings are crucial for RS3PE patients, although our patient's age and family history did not warrant immediate screening. Diagnosing RS3PE can be challenging due to its unique clinical presentation and negative serologic markers, often resulting in misdiagnosis or delayed treatment. Primary treatment for RS3PE involves glucocorticoids which yields rapid improvement.