

Overlap of Systemic Sclerosis and Rheumatoid Arthritis

FIRAS ALKASSAB, MD; MAUREEN D. MAYES, MD, MPH, Division of Rheumatology and Clinical Immunogenetics, The University of Texas–Houston Health Science Center, 6431 Fannin, MSB 5.270, Houston, Texas 77030, USA. Address reprint requests to Dr. Alkassab. E-mail: Firas.Alkassab@uth.tmc.edu

The overlap of systemic sclerosis (SSc) and rheumatoid arthritis (RA) is unusual, but has been reported^{1,2}. Synovitis in SSc is commonly attributed to SSc-associated inflammatory arthritis, which is typically nonerosive. This is a hand radiograph of a 51-year-old woman with a 6-year history of diffuse cutaneous SSc (dcSSc) who complained of swelling



Figure 1. Left hand radiograph of a patient with SSc/RA overlap. Right panel: Close-up view of the first digit.

and stiffness of her hand joints for 6 months. On examination, in addition to stable skin thickening of the fingers, she had new active synovitis in the proximal interphalangeal (PIP), metacarpophalangeal (MCP), and wrist joints bilaterally.

Hand radiographs showed SSc-related resorption of the distal phalangeal tufts with bone fragmentation (arrows, Figure 1), as well as juxtaarticular osteopenia and multiple marginal erosions of the PIP and first MCP (arrowheads) consistent with concomitant RA. Serum rheumatoid factor, anti-cyclic citrullinated peptide, and anti-topoisomerase I were markedly positive. Antibody to U1-ribonucleoprotein was negative. Methotrexate provided suboptimal improvement, so etanercept was added, with sustainable resolution of the synovitis and marked clinical improvement.

Erosive RA can occasionally overlap with SSc, especially in the anti-topoisomerase I-positive subset. Although clinically challenging, this is to be distinguished from the frequently observed nonerosive SSc-associated arthritis.

REFERENCES

1. Szucs G, Szekanecz Z, Zilahi E, et al. Systemic sclerosis–rheumatoid arthritis overlap syndrome: a unique combination of features suggests a distinct genetic, serological and clinical entity. *Rheumatology Oxford* 2007 Mar 23; [Epub ahead of print].
2. Horiki T, Moriuchi J, Takaya M, et al. The coexistence of systemic sclerosis and rheumatoid arthritis in five patients. Clinical and immunogenetic features suggest a distinct entity. *Arthritis Rheum* 1996;39:152-6.