

Correction of Volar Subluxation Deformities of the Metacarpophalangeal Joints Following a Distal Radius Fracture in a Patient With Systemic Lupus Erythematosus

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Extensor tendon subluxation over the metacarpal head, leading to metacarpophalangeal joint ulnar deviation, is a hand deformity seen in patients with systemic lupus erythematosus. Apart from soft tissue procedures, metacarpal shortening osteotomy is a previously described surgical treatment for this deformity. We present a patient whose fixed deformity was spontaneously corrected after a displaced distal radius fracture. At 1 year, the correction was maintained. We discuss the biomechanical basis behind the phenomenon. (*J Hand Surg Am.* 2016;41(9):e295–e298. Copyright © 2016 by the American Society for Surgery of the Hand. All rights reserved.)

Key words Hand deformity, systemic lupus erythematosus, metacarpophalangeal joint, volar subluxation, extensor tendon subluxation.



SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) is an autoimmune disease characterized by the production of autoantibodies affecting multiple systems within the body. The musculoskeletal system is affected most often, with involvement in more than half of all patients.^{1,2} Musculoskeletal involvement includes articular and nonarticular manifestations including myositis, enthesopathy, and tendinopathy.²

Joint deformities in the hand occur as a result of ligament and volar plate laxity, as well as extensor tendon subluxation, resulting in an imbalance of forces acting on the joints.¹ The deformity is actively correctible initially but may progress to a fixed deformity.

We describe a patient with SLE who had bilateral extensor tendon subluxations resulting in metacarpophalangeal (MCP) joint deformities that required passive assistance to achieve full extension at the MCP joints. After a displaced distal radius fracture, she attained spontaneous correction of the hand deformity in the injured limb, such that she could actively extend the MCP joints.

CASE REPORT

The patient was a 63-year-old woman with a long-standing history of SLE. She was evaluated in the outpatient clinic 10 days after a right distal radius fracture sustained in a fall. Radiographs (**Fig. 1**) showed an extraarticular fracture with significant loss of radial height, radial inclination, and volar tilt. The emergency physician reduced the fracture and placed the hand in an orthosis. Of note, the patient mentioned that the right hand deformity had corrected since the fracture. She had the same deformity on the left: MCP joint ulnar deviation and volar subluxation caused by extensor tendon subluxation, still present during the consultation.

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FIGURE 1: Trauma radiographs of the right wrist showing a displaced extra-articular distal radius fracture.



FIGURE 2: Lateral views of both hands with fingers in full active flexion and extension. Left images are those of the left hand.

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