

## Imaging Sciences Interesting Cases

### CASE 429

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**CLINICAL PRESENTATION:** Patient is a 44-year-old female status post-trauma, with a history of scleroderma.

**IMAGING FINDINGS:** 1. Amputation of the right index finger secondary to trauma. 2. Scleroderma with globular calcifications seen within the soft tissues of the wrist, radial aspect of the basal joint, and at all of the metacarpophalangeal, proximal interphalangeal, and distal interphalangeal joints.



**Figure 1:** AP view of the right hand demonstrates globular calcifications seen within the soft tissues of the wrist, radial aspect of the basal joint, and at all of the metacarpophalangeal, proximal interphalangeal, and distal interphalangeal joints. Findings are consistent with a diagnosis of scleroderma

**DIAGNOSIS: 1. Amputation of the right index finger; 2. Soft-tissue calcifications due to scleroderma**

**DISCUSSION:** Scleroderma is an autoimmune connective tissue disease. The disease results in excessive production of collagen which accumulates in the extracellular matrix, causing thickening of the skin and fibrosis of organs.

There are several musculoskeletal radiographic findings of scleroderma, including acro-osteolysis, resorption of the ends of long bones such as distal ends of ribs, clavicles, radius and ulna; polyarthritis, flexion contractures, and subcutaneous and periarticular calcifications which were seen in our patient.

The most common observations on hand radiographs include flexion deformities and soft tissue atrophy due to the taut skin in the hands. Calcifications seen in relation to scleroderma are dystrophic in nature. They are commonly seen in the fingers, especially the fingertips, as was seen in our patient. Calcifications can however occur in any location and there may or may not be associated joint destruction.

**REFERENCES:**

1. Babyn P, Doria AS. Radiologic investigation of rheumatic diseases. *Rheum Dis Clin North Am.* 2007 Aug;33(3):403-40. PMID: 17936172 [PubMed]
2. Bassett LW, Blocka KL, Furst DE, Clements PJ, Gold RH. Skeletal findings in progressive systemic sclerosis (scleroderma). *AJR Am J Roentgenol.* 1981 Jun;136(6):1121-6. PMID: 6786024 [PubMed]