Clinical Images

Acro-osteolysis & calcinosis in scleroderma

![Fig. 1A. Radiograph of left hand in oblique view revealing severe osteopenia, acro-osteolysis (red arrows) calcinosis (blue arrow) at the carpal bones and sclerodactyly of all fingers. Pulse oximeter cable attached to the left thumb is also seen.](image)

![Fig. 1B. Radiograph of right hand revealing acro-osteolysis in multiple fingers. (red arrows), severe osteopenia and marked sclerodactyly of all fingers.](image)

![Fig. 2A. Radiograph of right elbow with calcinosis (blue arrow).](image)

![Fig. 2B. Radiograph of chest showing multiple sites of calcinosis (blue arrows), prominent interstitial markings and decreased lung volumes on semi erect view. Telemetry leads are also seen attached to the chest.](image)

A 74 yr old female, who was referred to Pulmonary and Critical Care Department at the University of Texas Health Science Center at Houston, Texas, USA, in July 2014 for critical aortic stenosis, reported a history of being diagnosed with scleroderma 15 years back, but had never sought treatment. At the time of examination, she had severe flexion contractures, sclerodactyly of fingers with shortening of terminal phalanges, as well as bony deformity involving her right elbow. Radiographs of her hands revealed acro-osteolysis of her digits (red
arrows), and calcinosis (blue arrows) involving her wrist, elbow and shoulders (Figs. 1 and 2A and B). Laboratory profile was significant for markedly high levels of anti Scl-70 (anti-topoisomerase 1 antibody) of > 8 AI (Normal range - < 0.9). The patient refused further treatment and was discharged.

Acro-osteolysis (bony resorption of terminal digital tufts) and calcinosis represent rare hand manifestations of scleroderma. Both these manifestations are associated with vascular complications, highlighting a potential role of vascular injury. Calcinosis, or dystrophic soft tissue calcification, occurs in damaged and devitalized tissues from the deposition of amorphous calcium hydroxyapatite crystals. Medical therapy of both these conditions is limited.

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