Calcinosis Cutis Universalis in an Inactive Systemic Lupus Erythematosus Patient

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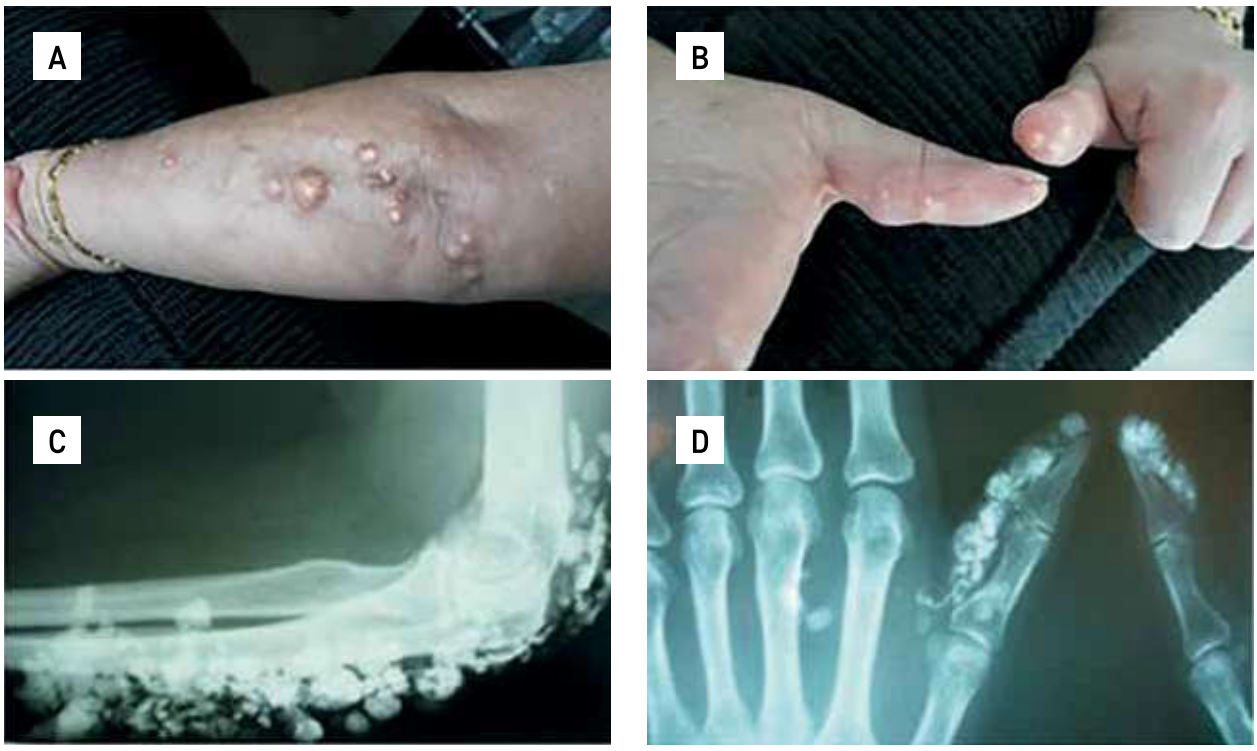
A 59-year-old female patient diagnosed with SLE in 1995 was in clinical remission and had not taken medication for 15 years. She exclusively used hydroxychloroquine 400 mg every other day.

The calcinosis started on the elbows [Figure 1A], shoulders, and fingers [Figure 1B], confirmed by the radiographs of the sites [Figures 1C and 1D]. The levels of serum and urinary calcium, phosphorus, alkaline phosphatase, creatinine, 25-OH-vitamin D, and parathyroid hormone were within the normal range. There were no clinical alterations compatible with scleroderma, myositis, or Sjögren's syndrome. Nailfold capillaroscopy, high-resolution chest computed tomography, spirometry, echocardiogram, esophagogram, muscle enzymes, Schirmer and Bengal rose tests, and salivary gland scintigraphy were all normal. Anti-Scl-70, anti-U1RNP, and anti-Jo-1 antibodies were negative. A diagnosis of calcinosis cutis universalis was determined, and she received several treatments, which include aluminum hydroxide (80 ml/day), warfarin (1 mg/day), alen-

Figure 1. Calcification areas on elbow and forearm regions **[A]** and fingers **[B]** and X-rays showing multiple areas of round-shaped calcifications in soft tissues of the arm, elbow, and forearm **[C]** and fingers bilaterally **[D]**



dronate (70 mg/week), diltiazem (360 mg/day), and colchicine 1mg/day without clinical or radiological improvement.

She was treated with bimonthly pamidronate with a slight improvement of the calcinosis, in addition to physical therapy and hydrotherapy to improve range of motion and quality of life.

Calcinosis cutis universalis is a rare condition characterized by a widespread deposition of calcium salts in the skin and subcutaneous tissues. It is different from localized calcinosis. The condition has been reported in systemic sclerosis, dermatomyositis, overlap syndrome, but rarely in SLE. To the best of my knowledge, only seven patients with lupus and calcinosis cutis universalis have been described in the medical literature [1-5]. In general, lupus is active during the calcinosis process, and lupus flare was observed in six of the seven described cases, except in one [5], which was juvenile lupus that resolved after the calcinosis process.

Our patient had a different evolution. No evidence of lupus activity was detected during calcinosis formation. The calcinosis started 15 years after lupus remission.

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Capsule

Subcutaneous REGEN-COV antibody combination to prevent COVID-19

REGEN-COV (previously known as REGN-COV2), a combination of the monoclonal antibodies casirivimab and imdevimab, has been shown to markedly reduce the risk of hospitalization or death among high-risk persons with coronavirus disease-2019 (COVID-19). **O'Brian** et al. randomly assigned, in a 1:1 ratio, participants (≥ 12 years of age) who were enrolled within 96 hours after a household contact received a diagnosis of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection to receive a total dose of 1200 mg of REGEN-COV or matching placebo administered by means of subcutaneous injection. Symptomatic SARS-CoV-2 infection developed in 11 of 753 participants in the REGEN-COV group (1.5%) and in 59 of 752 participants in the placebo group (7.8%) (relative risk reduction [1 minus the relative risk], 81.4%; $P < 0.001$). In weeks 2 to 4, a total of 2 of 753 participants in the REGEN-COV group (0.3%) and 27 of 752 participants in the placebo group (3.6%) had symptomatic SARS-CoV-2 infection (relative risk reduction, 92.6%). REGEN-COV also prevented symptomatic and asymptomatic infections overall (relative risk reduction, 66.4%). Among symptomatic infected participants, the median time to resolution of symptoms was 2 weeks shorter with REGEN-COV than with placebo (1.2 weeks and 3.2 weeks, respectively), and the duration of a high viral load (>10^4 copies per milliliter) was shorter (0.4 weeks and 1.3 weeks, respectively). No dose-limiting toxic effects of REGEN-COV were noted.

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Capsule

Antiviral immunity armor against adenovirus

Reactivation of human adenovirus (HAdV) is a major cause of mortality in children and immunocompromised individuals after allogeneic hematopoietic stem cell transplantation (allo-HSCT). Effective therapies for severe HAdV infections are lacking. Using a three-dimensional intestinal organoid system, **Jung** et al. investigated how natural killer (NK) cells recognize and kill HAdV-infected intestinal epithelial cells. HAdV-infected intestinal epithelial cells strongly upregulated a ligand called HLA-F that activates the NK cell receptor KIR3DS1 and enhances recognition and killing by NK cells. HAdV-infected pediatric allo-HSCT recipients who received KIR3DS1$^+$/HLA-Bw4$^+$ donor cells exhibited protection from severe HAdV infection and faster HAdV clearance. These findings suggest that the KIR3DS1/HLA-F axis is a promising target for the treatment of severe HAdV reactivation after allo-HSCT.

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